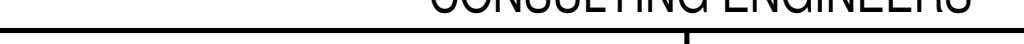
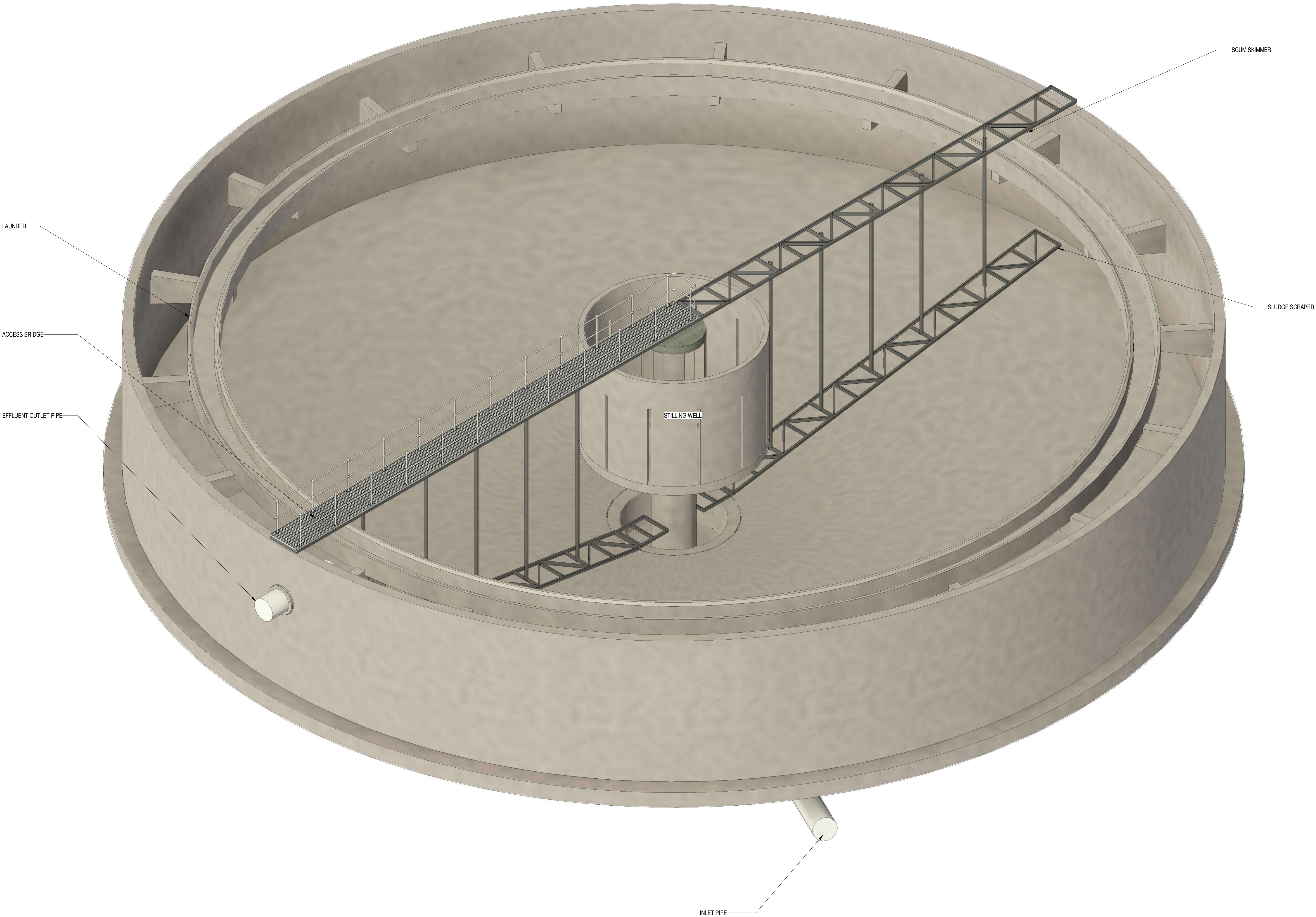




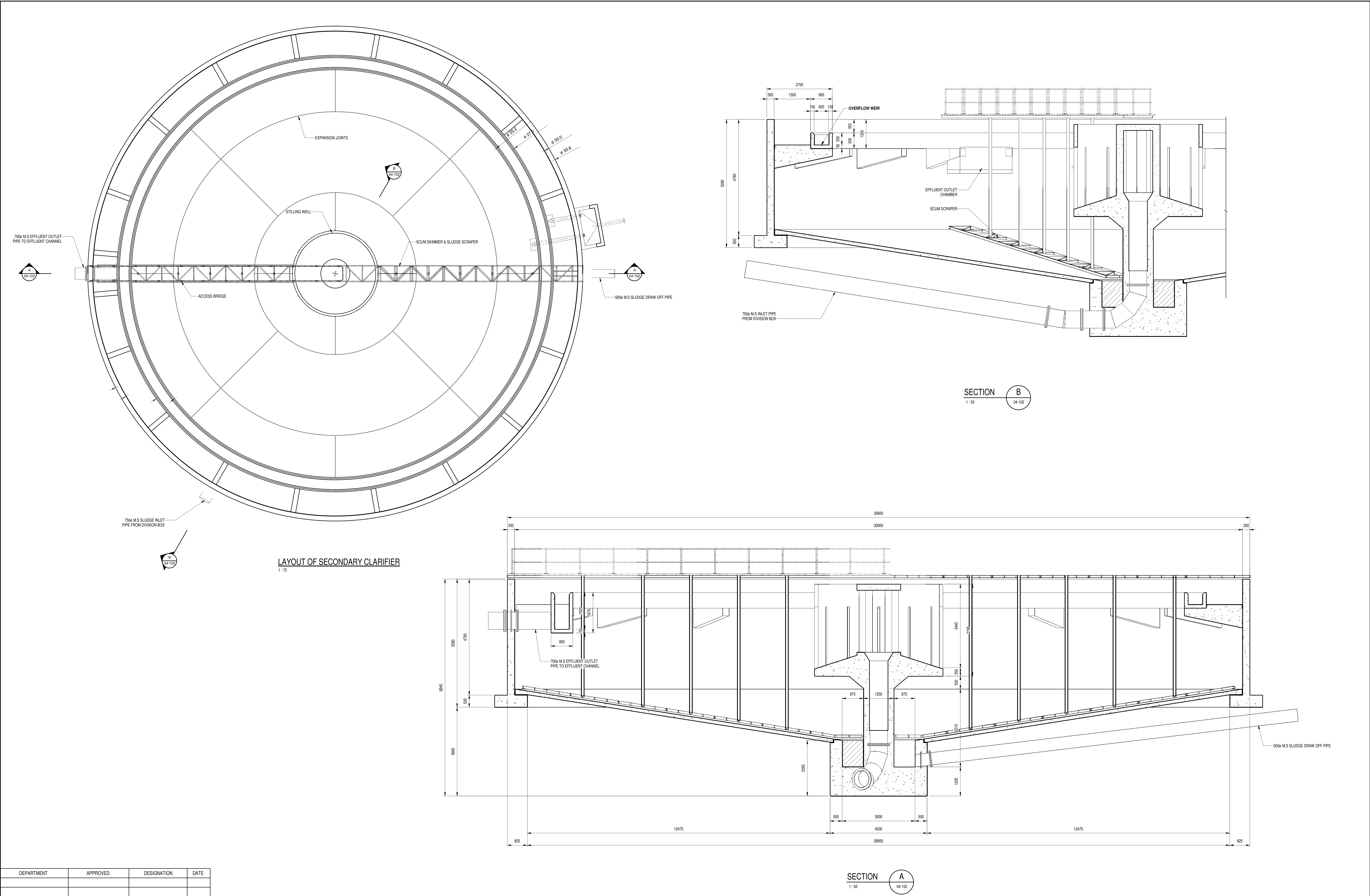
DEPARTMENT	APPROVED	DESIGNATION	DATE

CONSULTING ENGINEERS		JOHANNESBURG WATER (SOC) LTD		CITY OF JOHANNESBURG				DESIGN MANAGER	SCALE	AMENDMENTS		APPROVED	DATE	DRAWING NUMBER
	ZITHOLELE P.O.BOX 6002 HALFWAY HOUSE 1685 TEL. 011-207 2060 FAX. 086 674 6121 EMAIL mail@zitholele.co.za	SURVEYED			TURBINE HALL 65 NTEM PILISO STREET NEWTOWN	BUSHKOPPIE WASTEWATER TREATMENT WORKS INFRASTRUCTURE RENEWAL PLAN SECONDARY CLARIFIERS GENERAL ARRANGEMENT				T01	ISSUED FOR TENDER			
		DESIGNED	J.S.							CONSULTANT'S NUMBER 18056-73-04-100				
		DRAWN	J.P.								FILE NUMBER			
		CHECKED	J.S.											
		SERVICES CHECKED												
GEOTECHNICAL INVESTIGATION														
SERVITUDES														
APPROVED	J. SWART													
Pr. Eng. No.	860169													
DATE	24.03.2024													
DATE														



DEPARTMENT	APPROVED	DESIGNATION	DATE

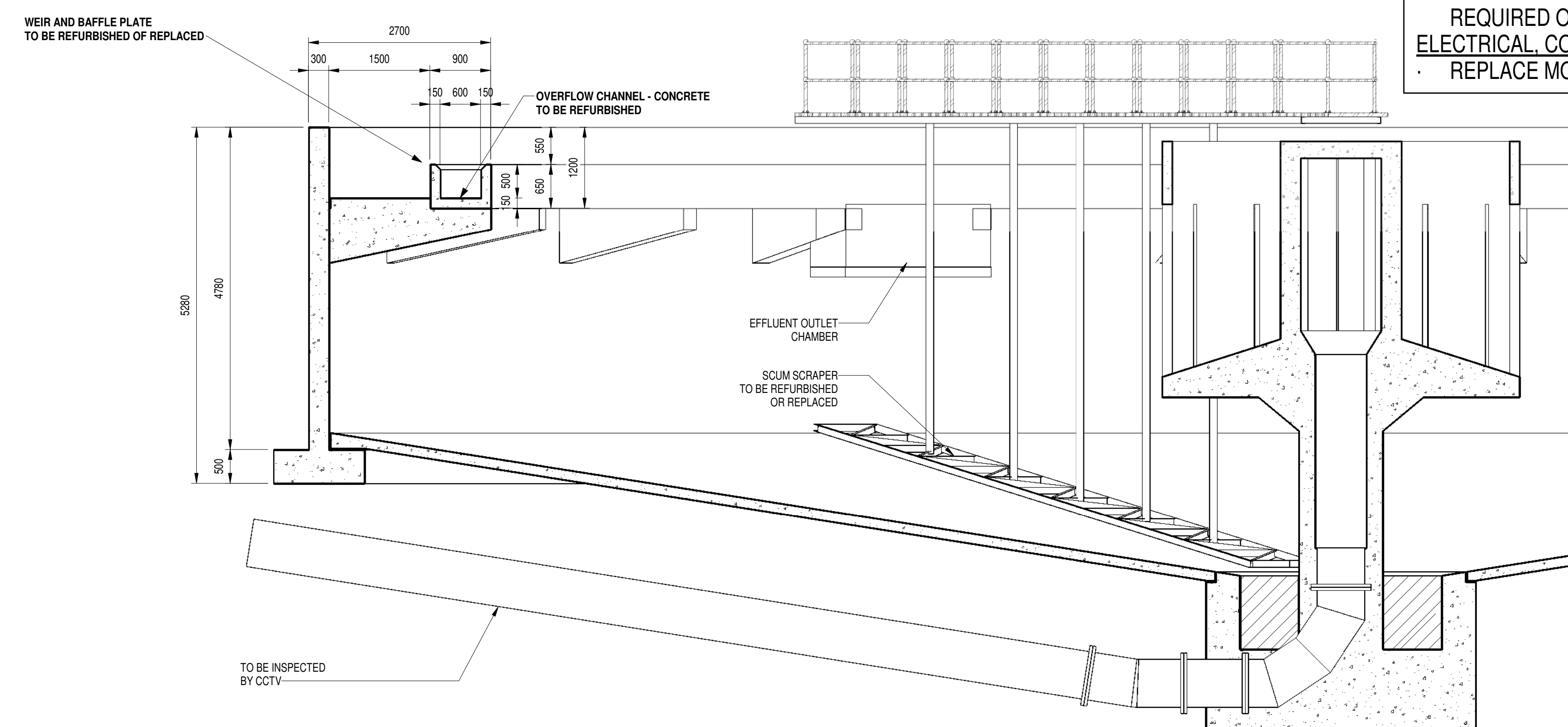
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	ZITHOLELE P.O.BOX 6002 HALFWAY HOUSE 1685 TEL. 011-207 2060 FAX. 086 674 6121 EMAIL mail@zitholele.co.za		DESIGNED		J.S	 Johannesburg Water	TURBINE HALL 65 NTEM PILISO STREET NEWTOWN TEL: (011) 688 1400 FAX: (011) 688 1529		BUSHKOPPIE WASTEWATER TREATMENT WORKS INFRASTRUCTURE RENEWAL PLAN SECONDARY CLARIFIER 3D VIEW AS BUILT										200	AS BUILT			J.H.S	12.11.2021	JW NUMBER			
			DRAWN		J.P														T01	ISSUED FOR TENDER			J.S	24.03.2024	CONSULTANT'S NUMBER			
			CHECKED		J.S														18056-73-04-101									
			SERVICES CHECKED																FILE NUMBER									
			GEOTECHNICAL INVESTIGATION																									
SERVITUDES		J.SWART	DATE																									
APPROVED		950169																										
		Pr. Eng. No.	24.03.2024																									
		DATE																										



DEPARTMENT	APPROVED	DESIGNATION	DATE

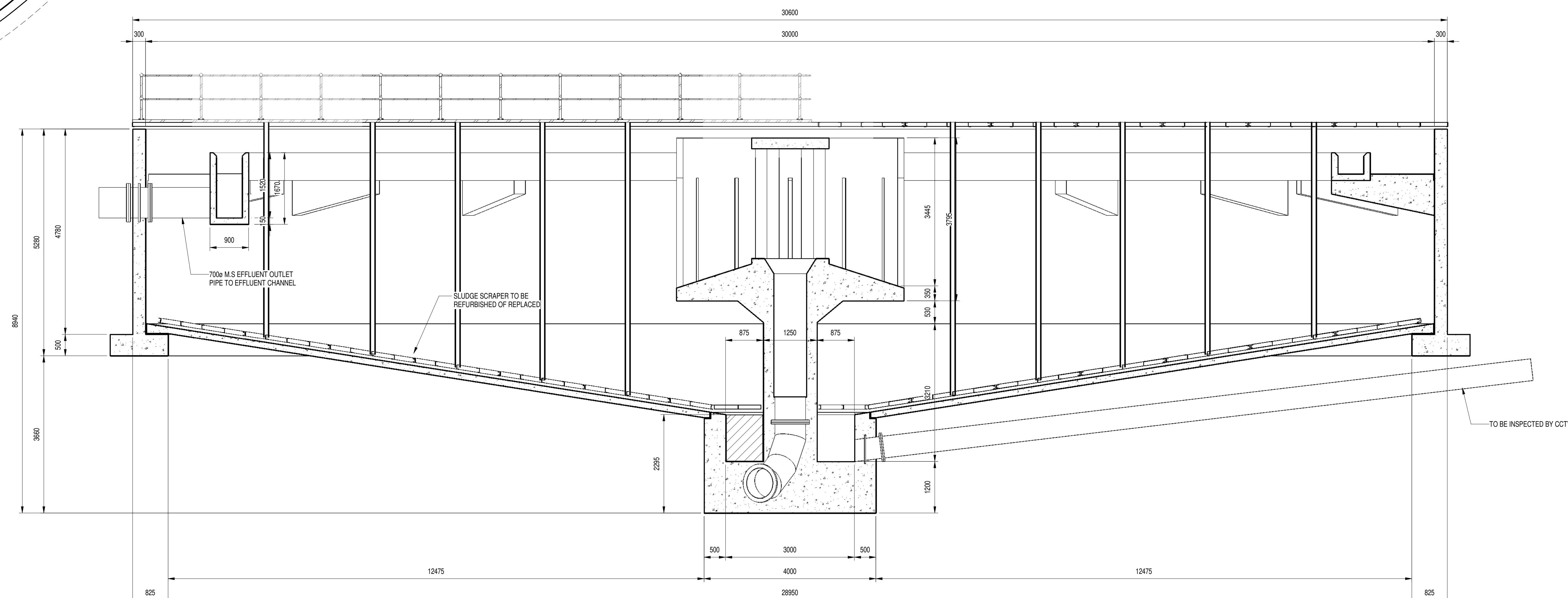
CONSULTING ENGINEERS		SURVEYED		JOHANNESBURG WATER (SOC) LTD		CITY OF JOHANNESBURG					DESIGN MANAGER	SCALE	AMENDMENTS		APPROVED	DATE	DRAWING NUMBER	
ZITHOLELE P.O.BOX 6002 HALFWAY HOUSE 1685 TEL. 011-207 2060 FAX. 086 674 6121 EMAIL mail@zitholele.co.za		DESIGNED J.S		 Johannesburg Water		BUSHKOPPIE WASTEWATER TREATMENT WORKS INFRASTRUCTURE RENEWAL PLAN SECONDARY CLARIFIER LAYOUT & SECTIONS AS BUILT							T01 AS BUILT ISSUED FOR TENDER					J.H.S J.S
		DRAWN J.P		TURBINE HALL 65 NTEM PILISO STREET NEWTOWN							DATE	AS SHOWN						
		CHECKED J.S		TEL: (011) 688 1400 FAX: (011) 688 1529														
		SERVICES CHECKED																
		GEOTECHNICAL INVESTIGATION																
		SERVITUDES																
		APPROVED J SWART																
		Pr. Eng. No. 860169																
		DATE 24.03.2024																

- CIVIL WORKS
- REPAIR CONCRETE THAT HAS DETERIORATED
- CLEAN OUT VEGETATION FROM LAUNDERS
- REMOVE AND REPAIR ALL JOINTS
- MECHANICAL WORKS
- REMOVE AND REPLACE SCRAPER SYSTEM
- REMOVE AND REPLACE SCUM REMOVAL SYSTEM
- SAND BLAST, HOT DIP GALVANISE & POLYURATHANE COATING REQUIRED ON ALL BRIDGES
- ELECTRICAL, CONTROL AND INSTRUMENTATION WORKS
- REPLACE MOTOR, GEARBOX AND SLIP RING



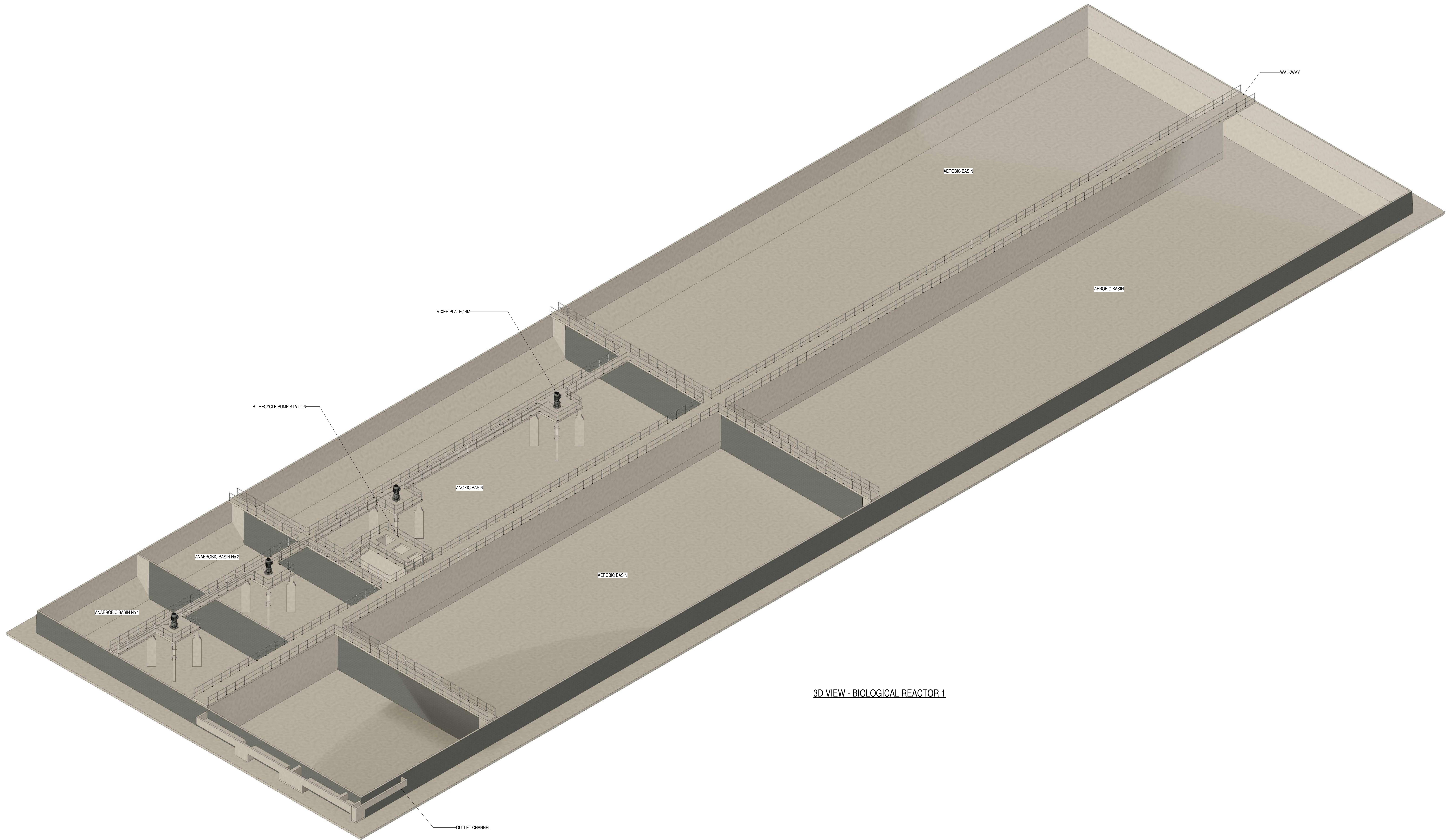
SECTION B

1:50 04-103



SECTION A
1:50 04-103

[illegible]

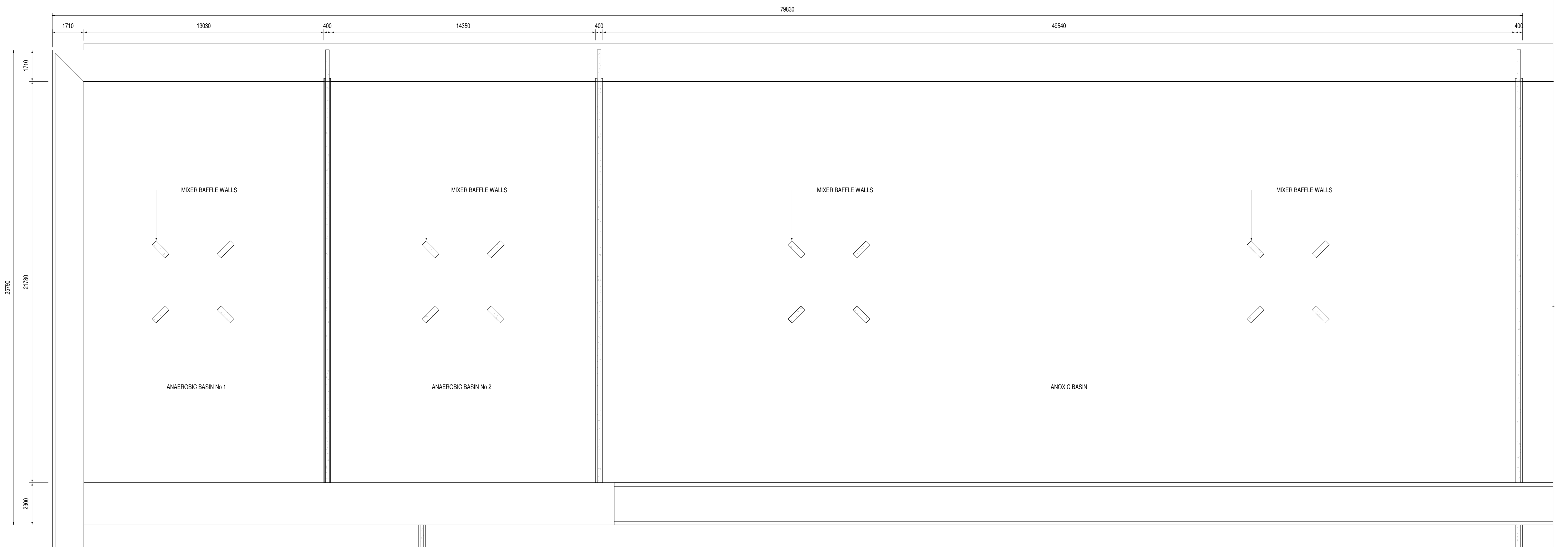


3D VIEW - BIOLOGICAL REACTOR 1

NOTES:
1. CONTRACTOR TO ASSESS EXISTING MIXERS
2. MIXERS TO BE REFURBISHED OR REPLACED IN ACCORDANCE WITH
CONDITIONAL ASSESSMENT.

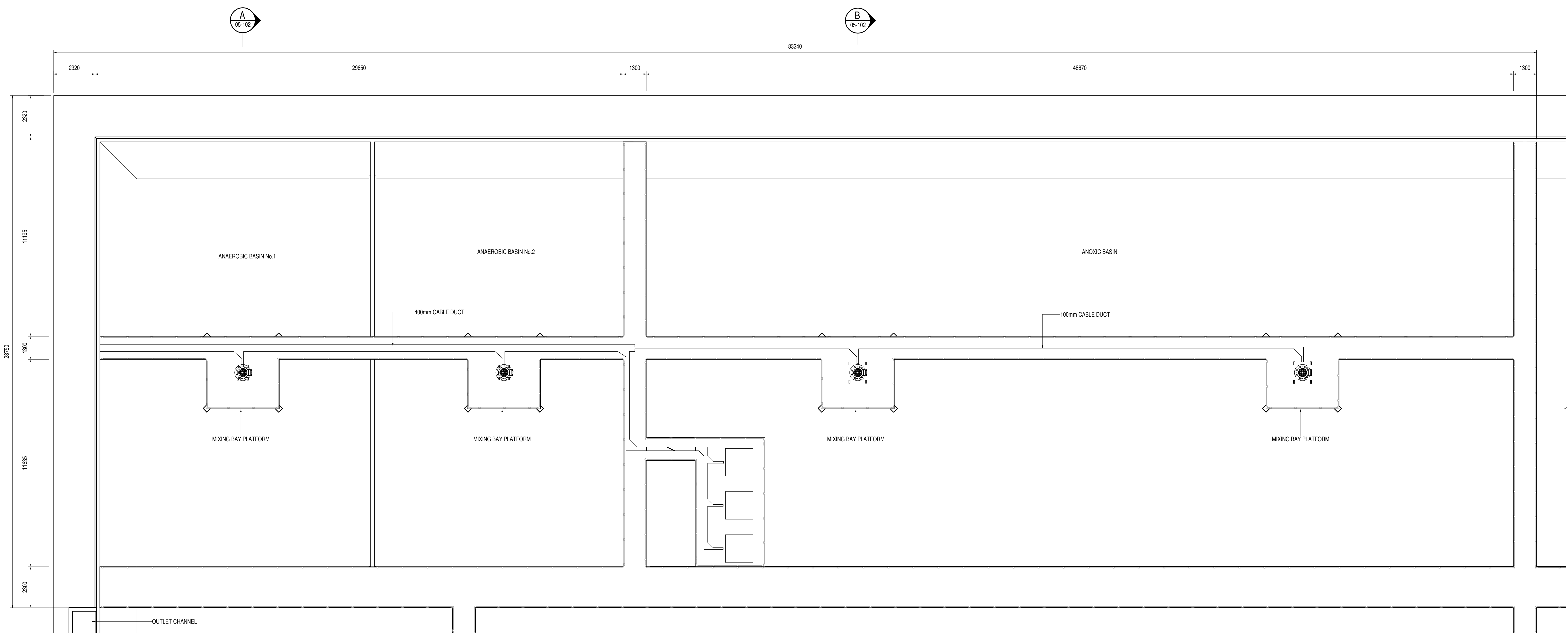
DEPARTMENT	APPROVED	DESIGNATION	DATE

CONSULTING ENGINEERS		SURVEYED		JOHANNESBURG WATER (SOC) LTD		CITY OF JOHANNESBURG										DESIGN MANAGER	SCALE	AMENDMENTS		APPROVED	DATE	DRAWING NUMBER																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
	ZITHOLELE P.O.BOX 6002 HALFWAY HOUSE 1685 TEL. 011-254 4800 FAX. 011-805 2100 EMAIL mail@zitholele.co.za	DESIGNED		J.S		TURBINE HALL 65 NTEM PILISO STREET NEWTOWN	BUSHKOPPIE WASTEWATER TREATMENT WORKS																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
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APPROVED		J.SWART			TEL: (011) 688 1400												DATE																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																



FLOOR PLAN

1:100



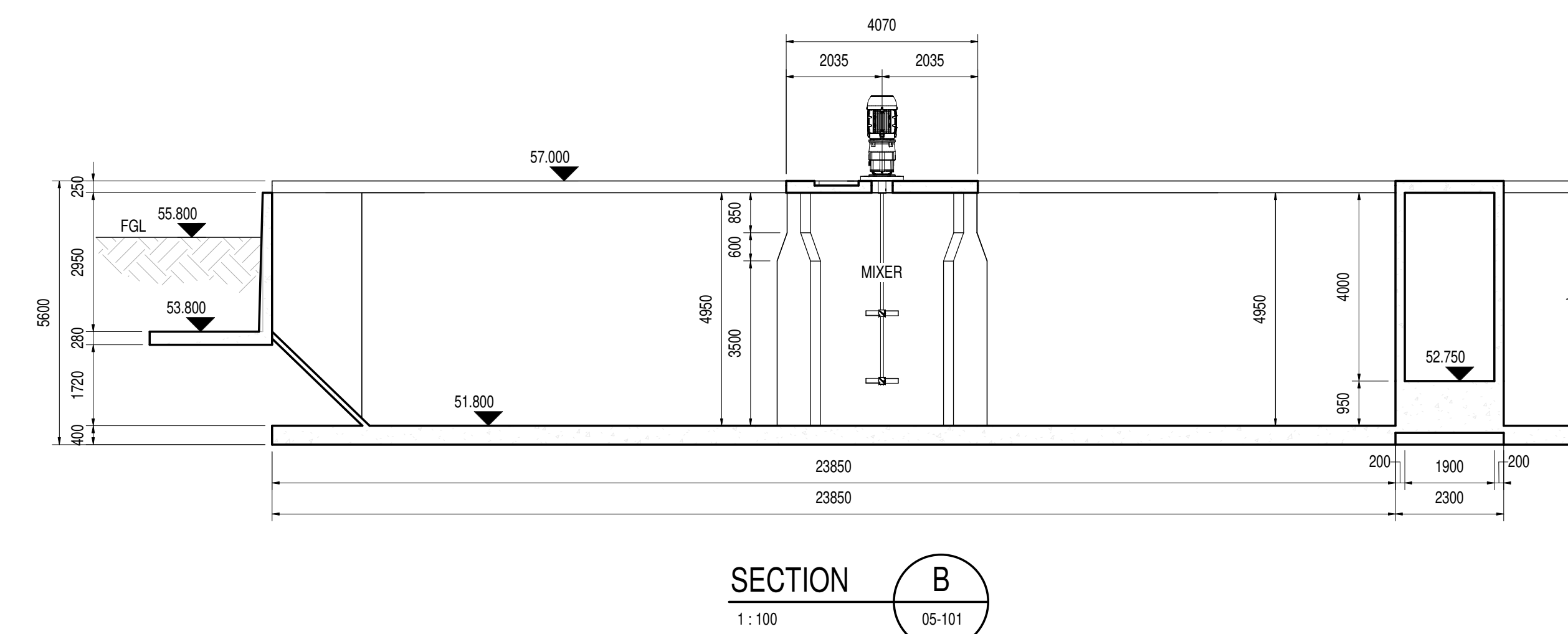
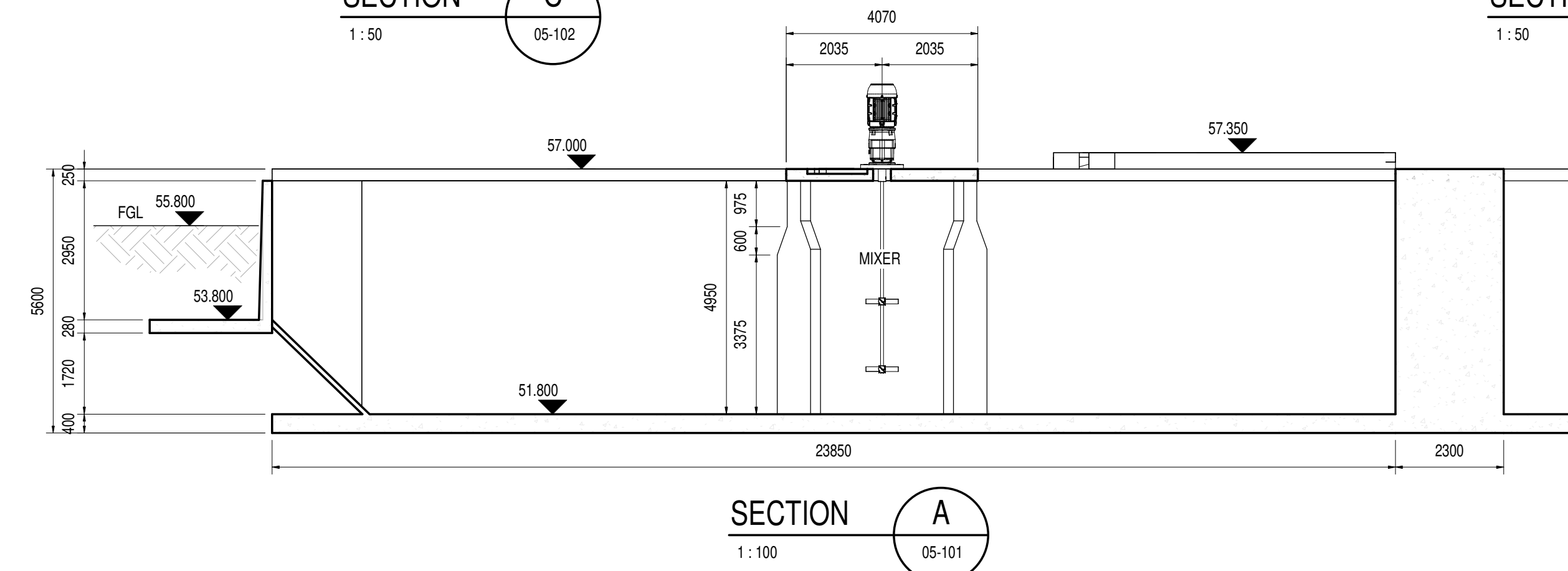
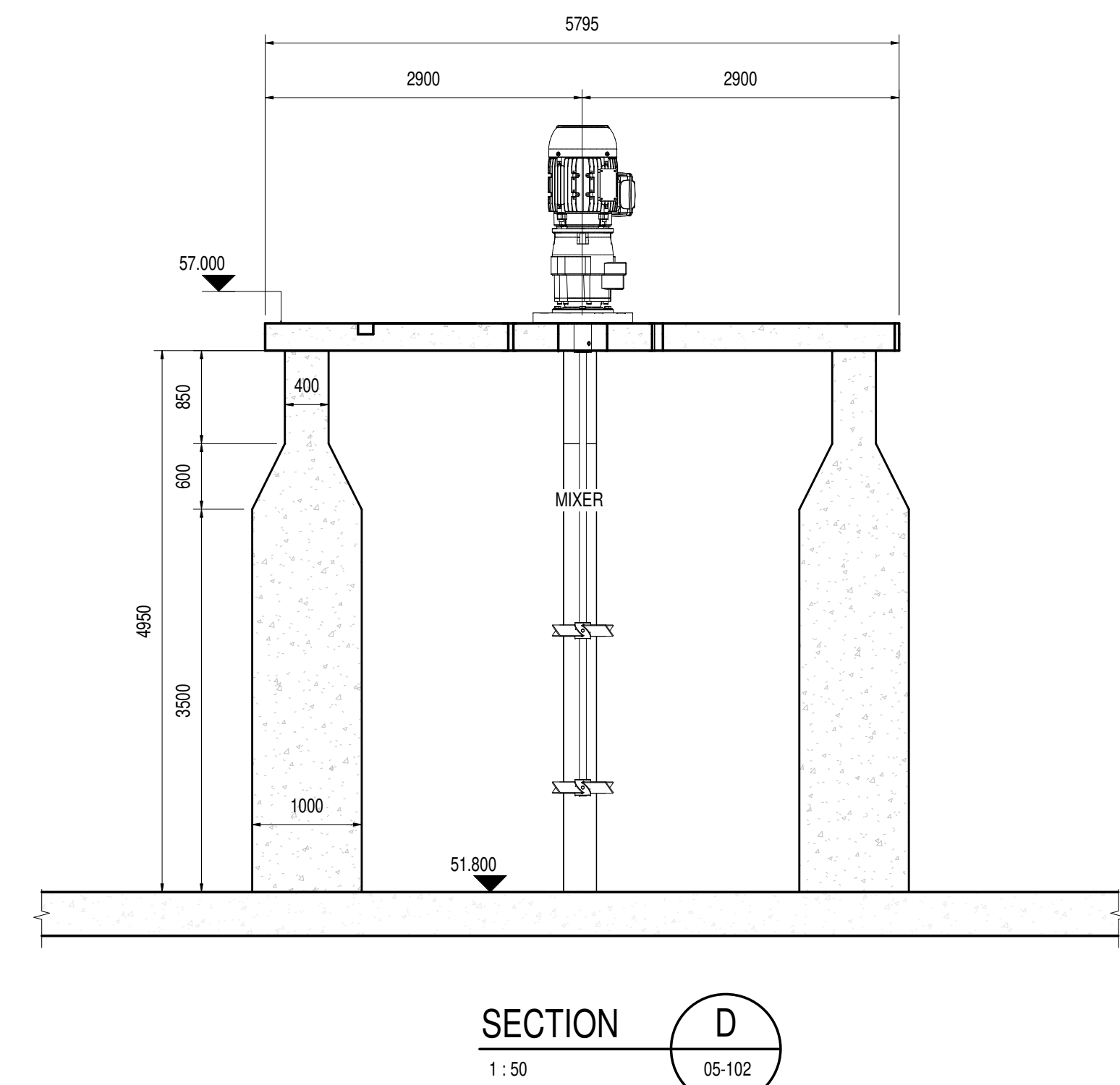
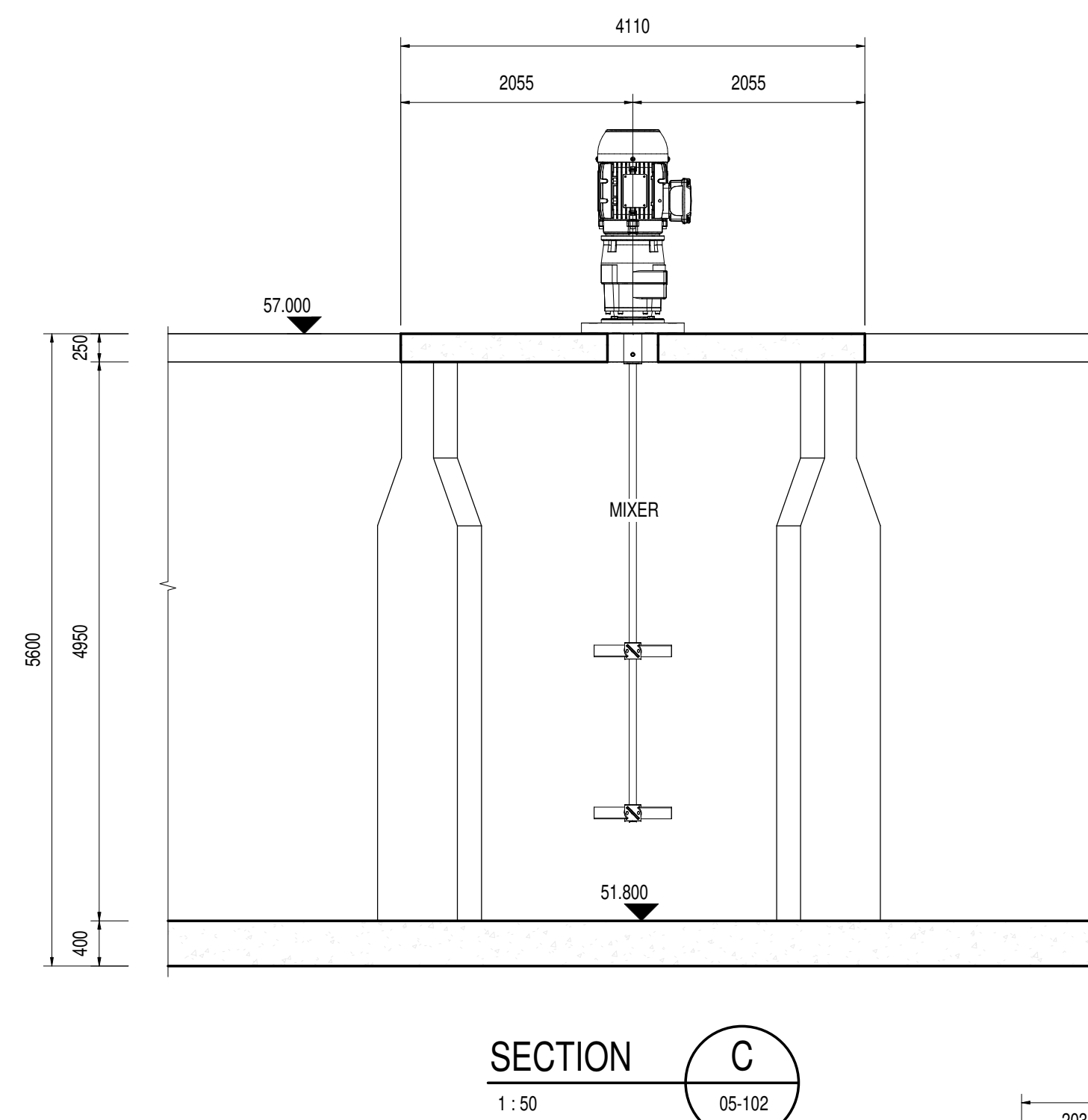
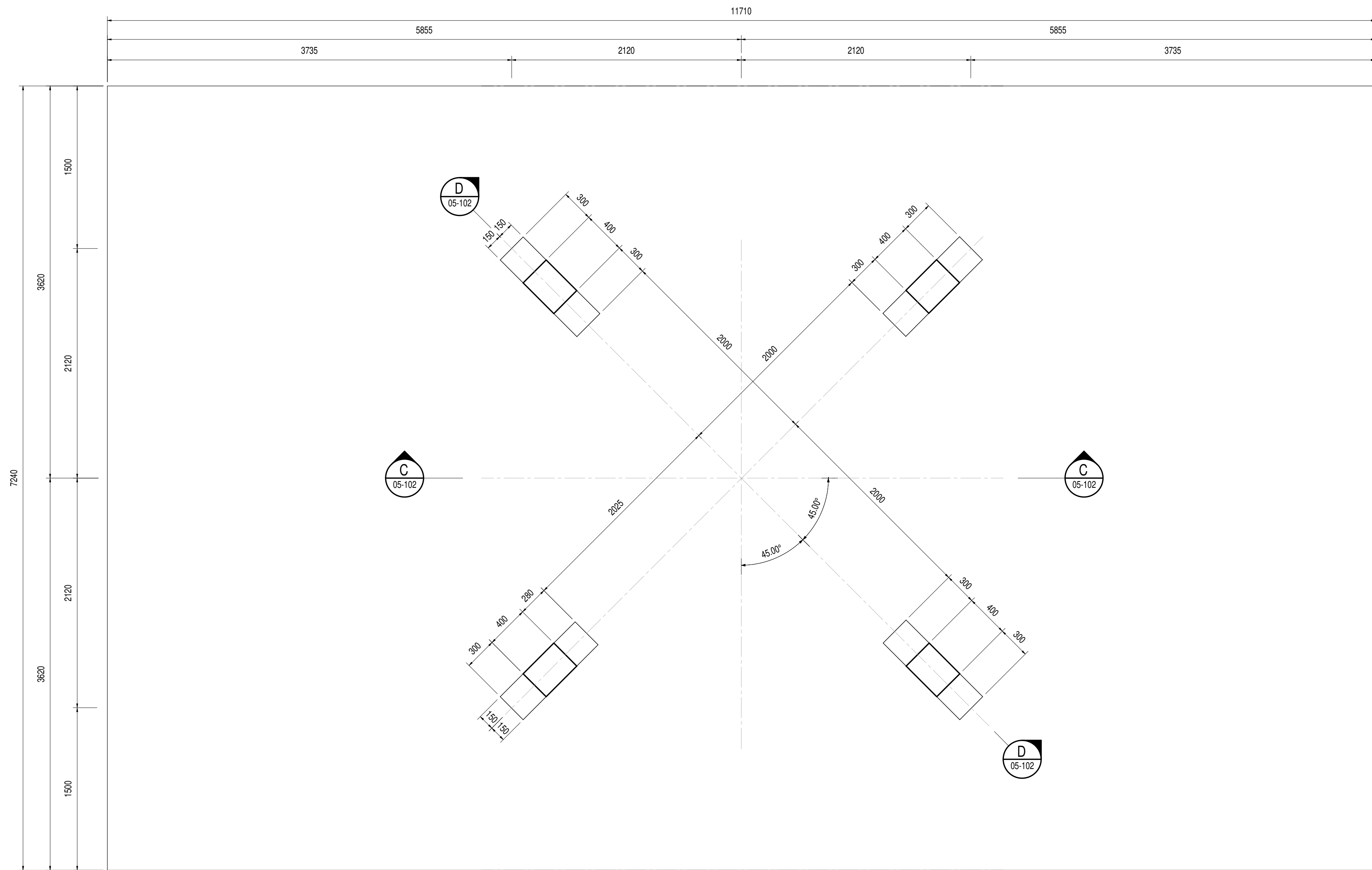
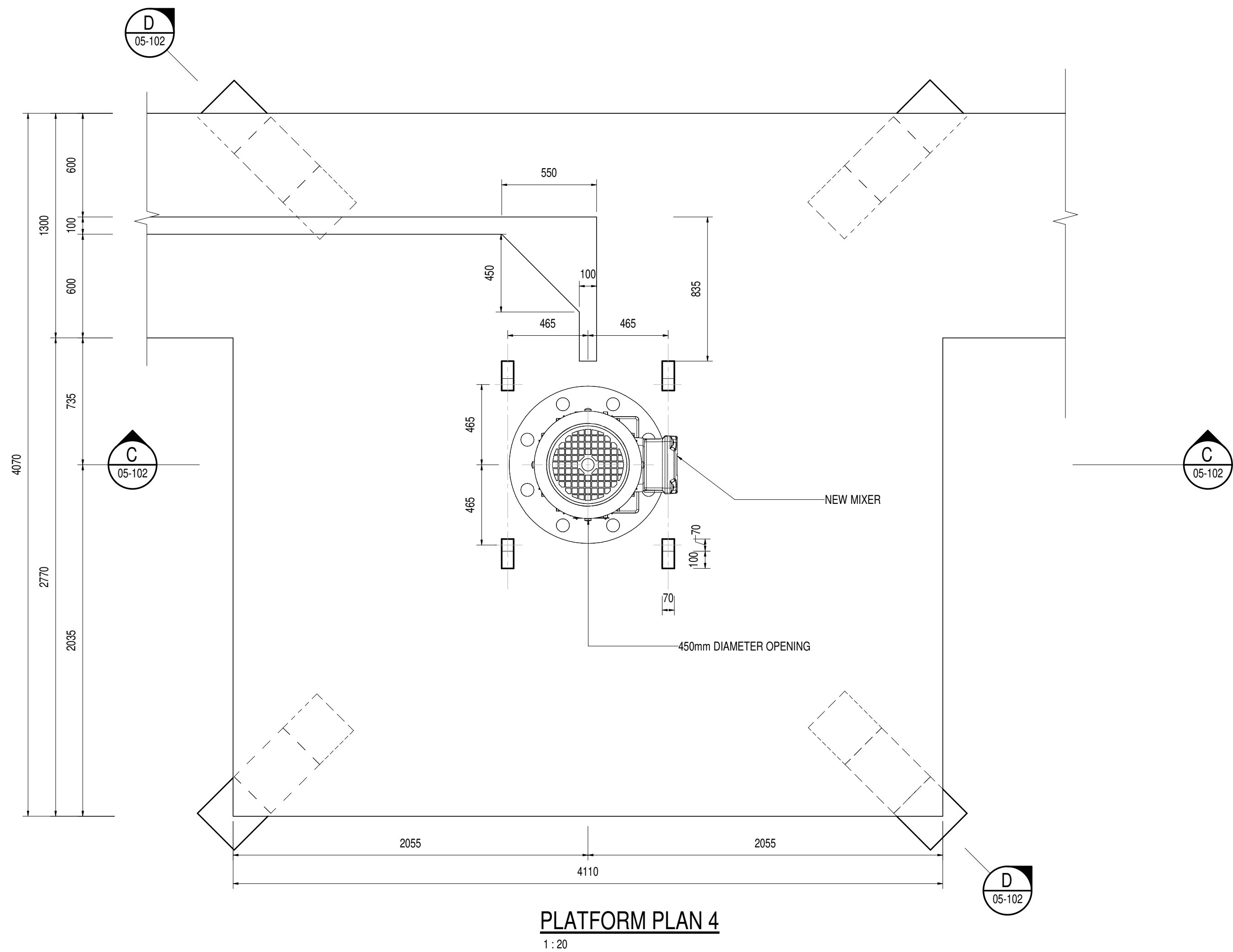
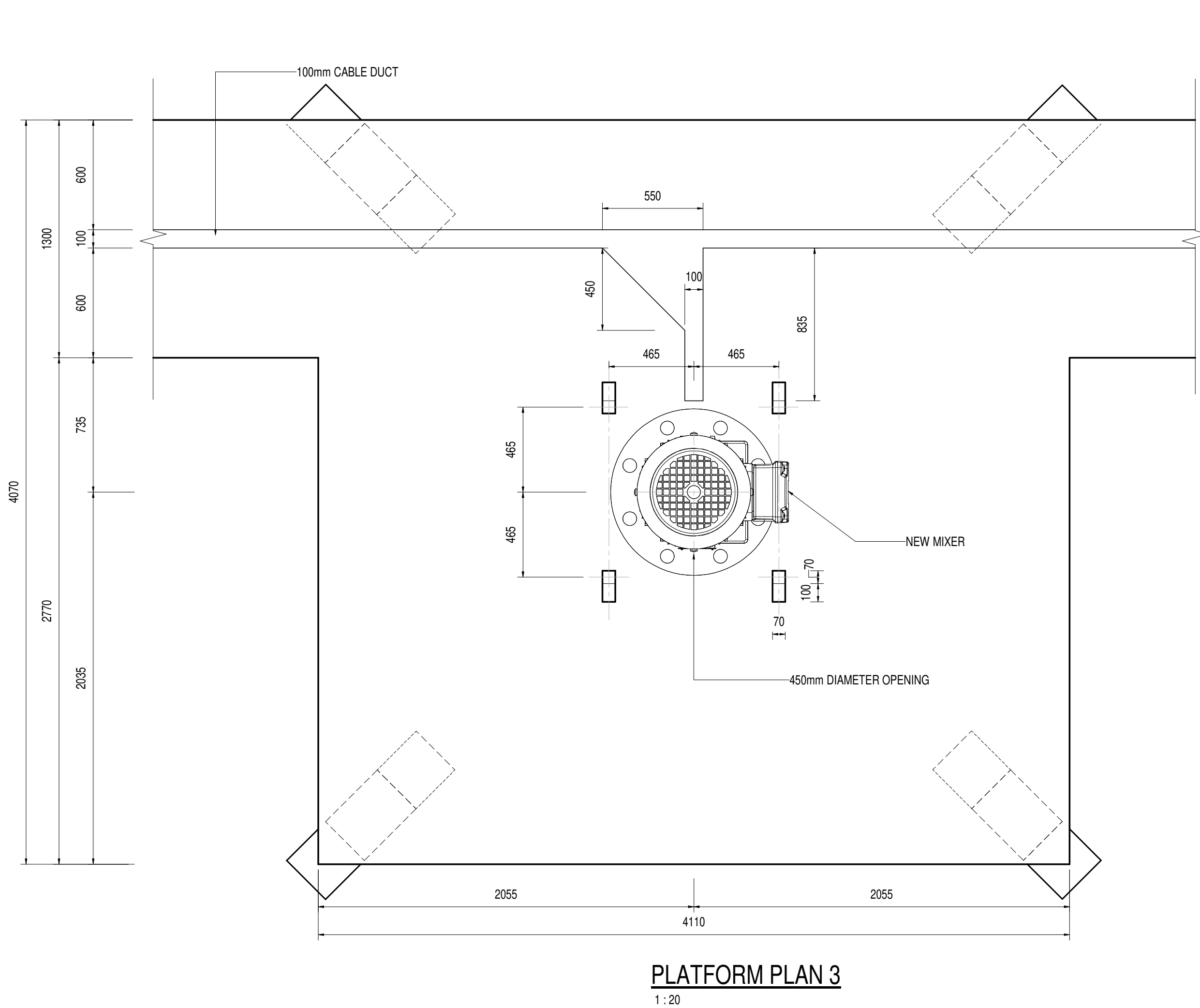
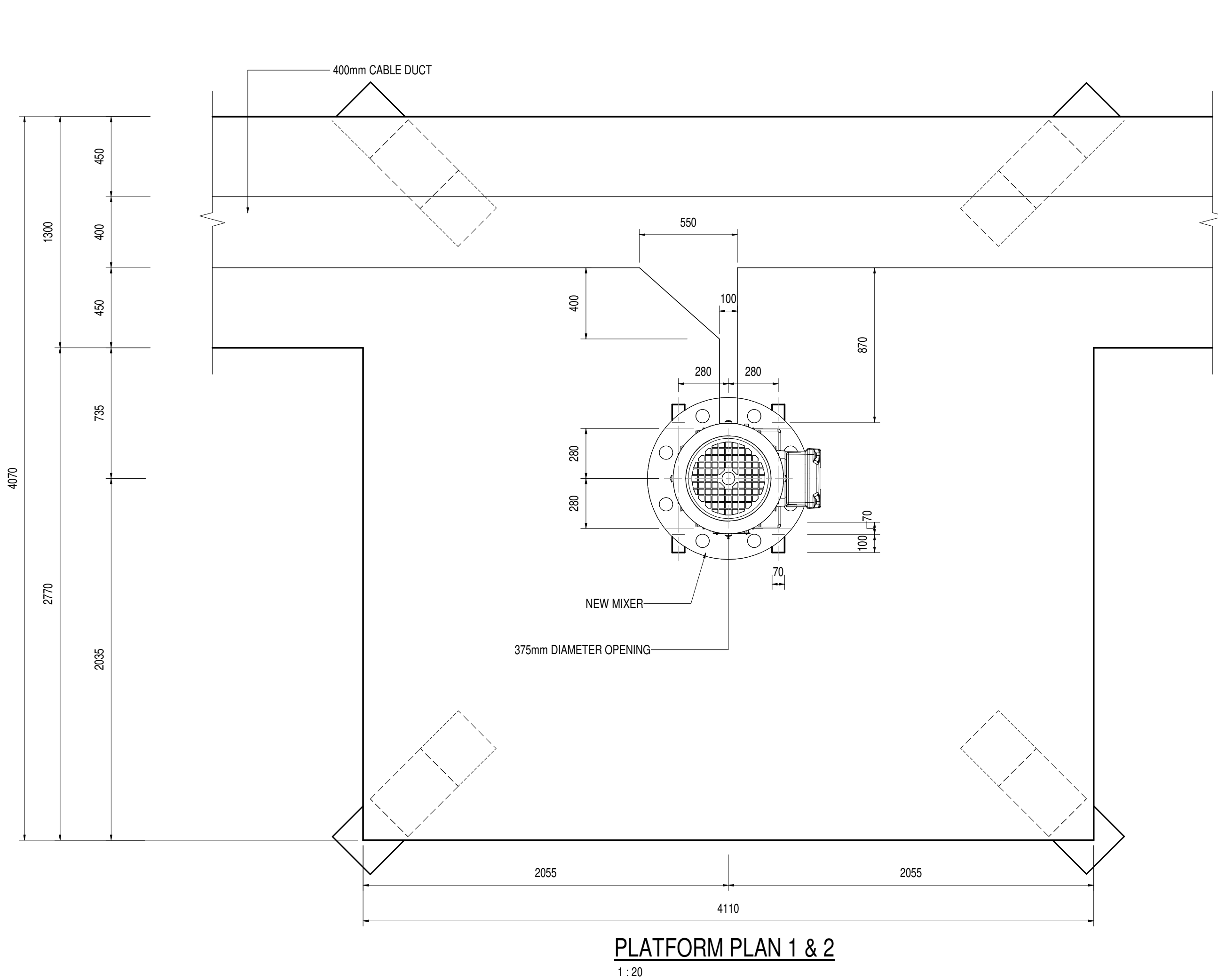
PLAN VIEW

1:100

NOTES:
1. CONTRACTOR TO ASSESS EXISTING MIXERS
2. MIXERS TO BE REFURBISHED OR REPLACED IN ACCORDANCE WITH
CONDITIONAL ASSESSMENT.

DEPARTMENT	APPROVED	DESIGNATION	DATE

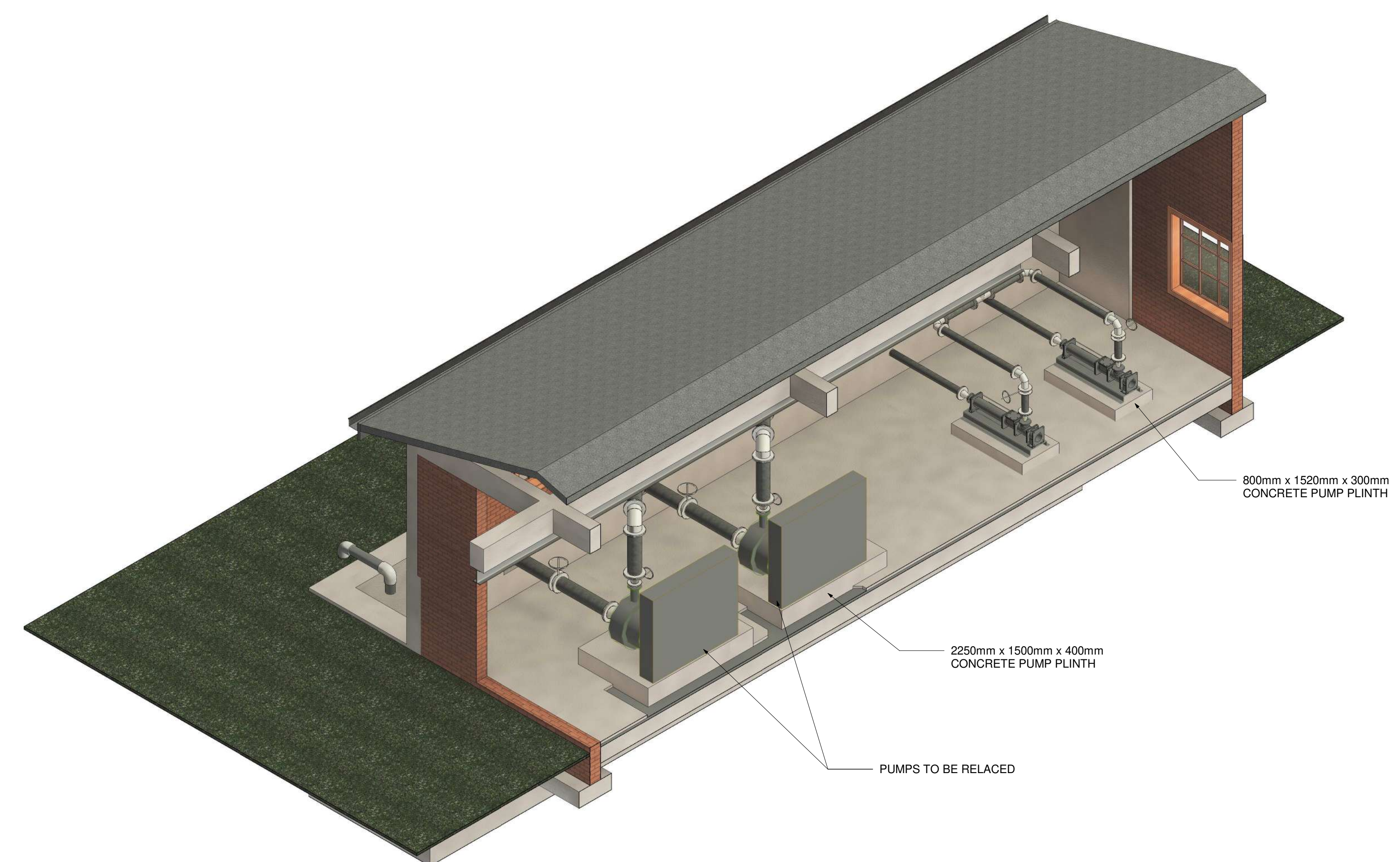
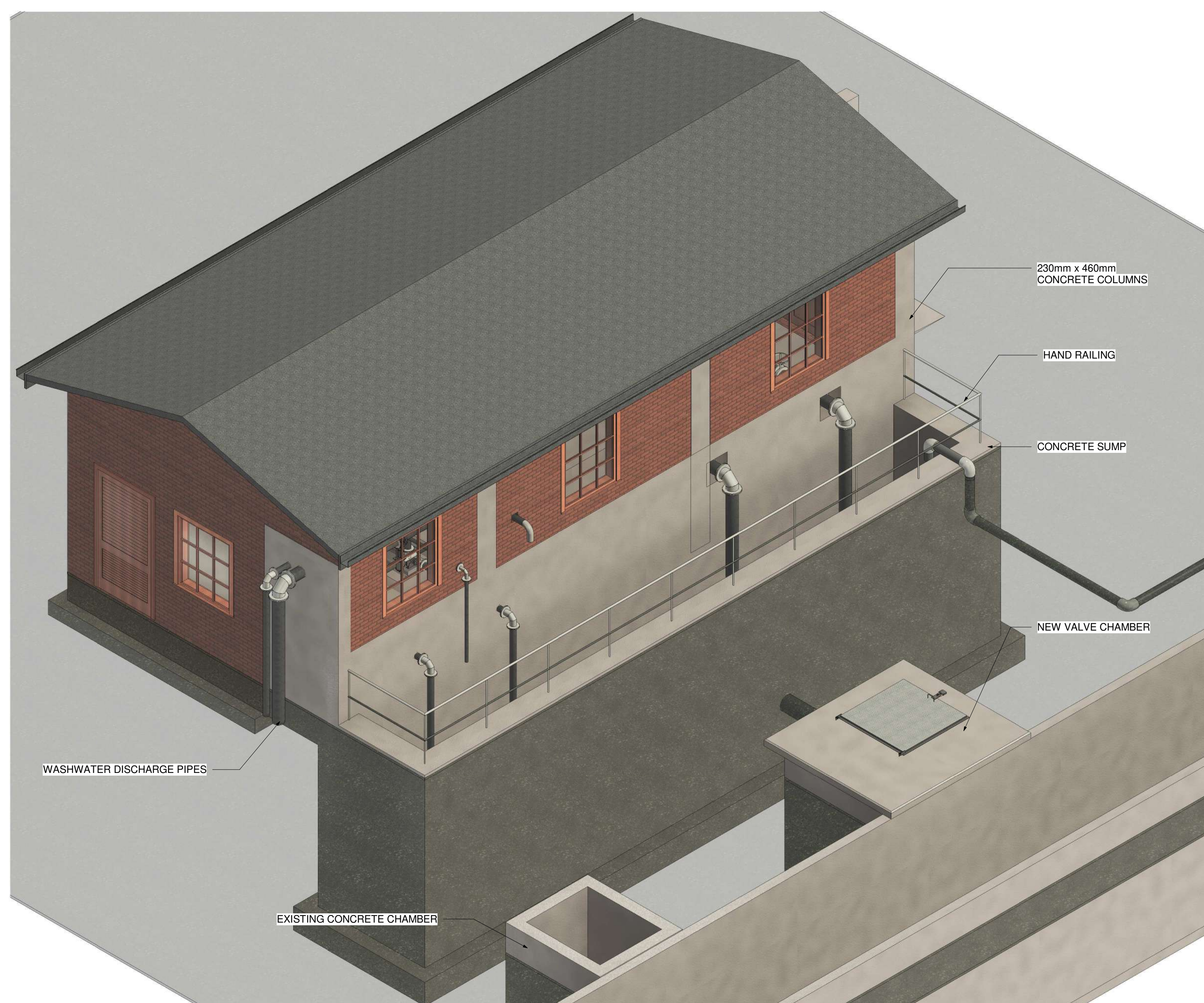
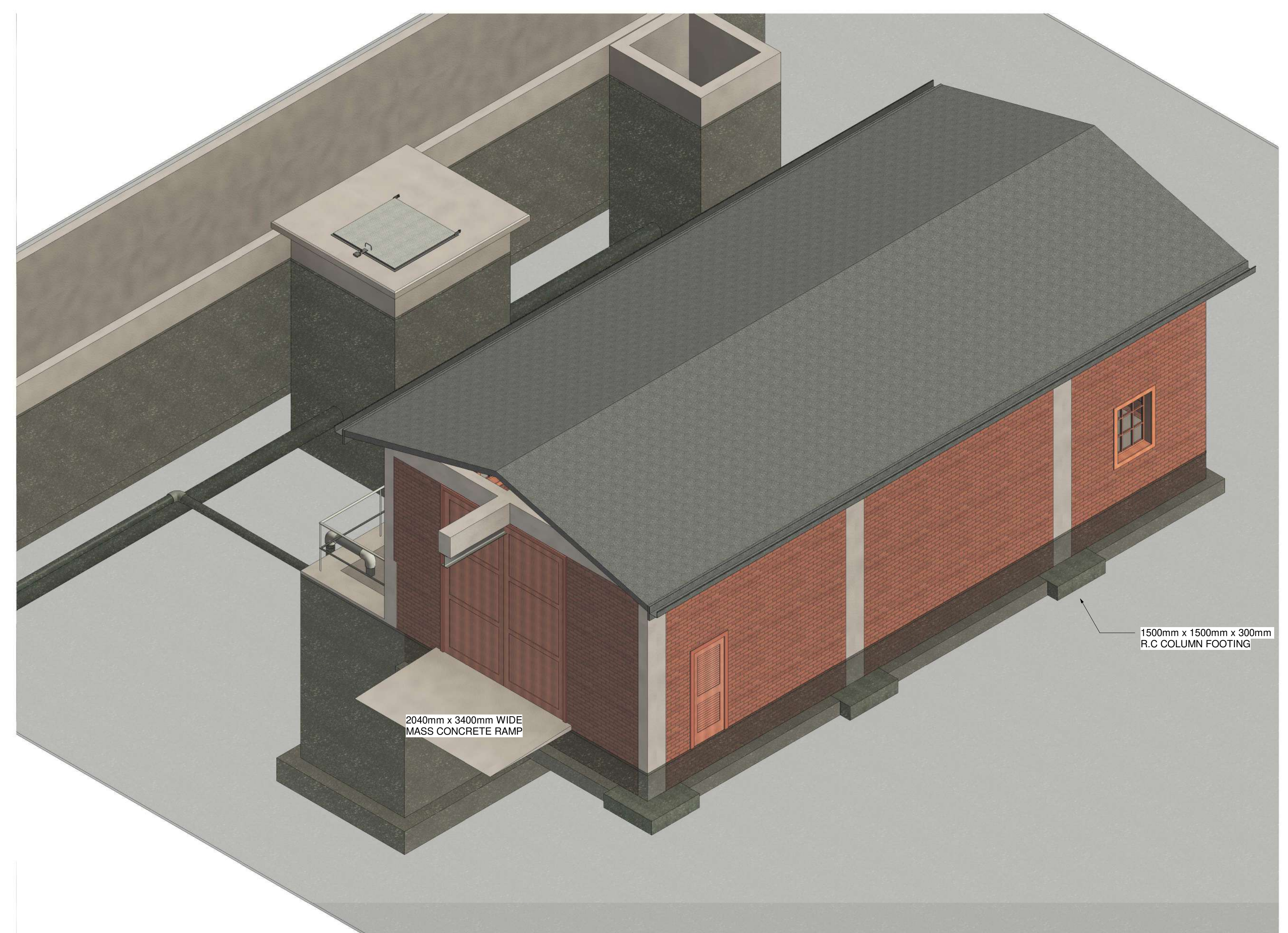
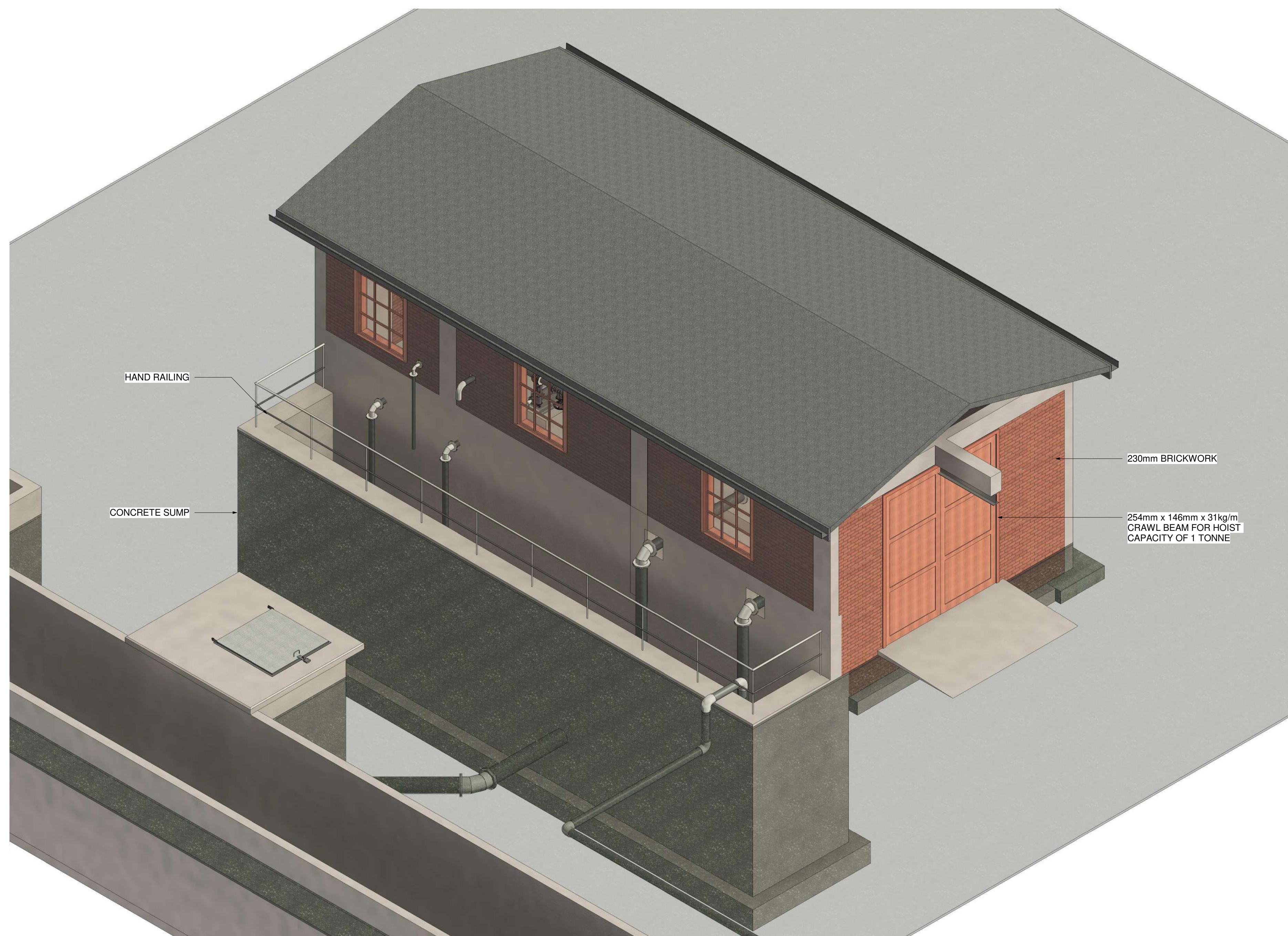
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	ZITHOLELE P.O.BOX 6002 HALFWAY HOUSE 1685 TEL. 011-254 4800 FAX. 011-805 2100 EMAIL mail@zitholele.co.za	SURVEYED	J.S		TURBINE HALL 65 NTEM PILISO STREET NEWTOWN TEL: (011) 688 1400 FAX: (011) 688 1529					BUSHKOPPIE WASTEWATER TREATMENT WORKS BIOLOGICAL REACTOR PLAN VIEW & FLOOR PLAN REFURBISHMENT				T01 ISSUED FOR TENDER		JHS	24.03.2024	JW NUMBER		
		DESIGNED	J.P					AS SHOWN							CONSULTANT'S NUMBER 18057-73-05-101					
		DRAWN	J.S												FILE NUMBER					
		CHECKED																		
		SERVICES CHECKED																		
								GEOTECHNICAL INVESTIGATION												
								SERVICES												
								APPROVED	J SWART											
								Pr. Eng. No.	860769											
								DATE	24.03.2024											



NOTES:
1. CONTRACTOR TO ASSESS EXISTING MIXERS
2. MIXERS TO BE REFURBISHED OR REPLACED IN ACCORDANCE WITH CONDITIONAL ASSESSMENT.

DEPARTMENT	APPROVED	DESIGNATION	DATE

CONSULTING ENGINEERS		SURVEYED		JOHANNESBURG WATER (SOC) LTD		CITY OF JOHANNESBURG										DESIGN MANAGER	SCALE	AMENDMENTS		APPROVED	DATE	DRAWING NUMBER				
	ZITHOLELE P.O.BOX 6002 HALFWAY HOUSE 1685 TEL. 011-254 4800 FAX. 011-805 2100 EMAIL mail@zitholele.co.za	DESIGNED	J.S		TURBINE HALL 65 NTEM PILISO STREET NEWTOWN TEL: (011) 688 1400 FAX: (011) 688 1529	BUSHKOPPIE WASTEWATER TREATMENT WORKS BIOLOGICAL REACTOR PLATFORM PLANS AND SECTIONS REFURBISHMENT										DATE	AS SHOWN	T01	ISSUED FOR TENDER		JHS	24.03.2024	JW NUMBER			
		DRAWN	J.P																				CONSULTANT'S NUMBER			
		CHECKED	J.S																				18057-73-05-102			
		SERVICES CHECKED																					FILE NUMBER			
		GEOTECHNICAL INVESTIGATION																								
		SERVICES																								
		APPROVED	J. SWART																							
Pr. Eng. No.	860169																									
DATE	24.03.2024																									



DEPARTMENT	APPROVED	DESIGNATION	DATE

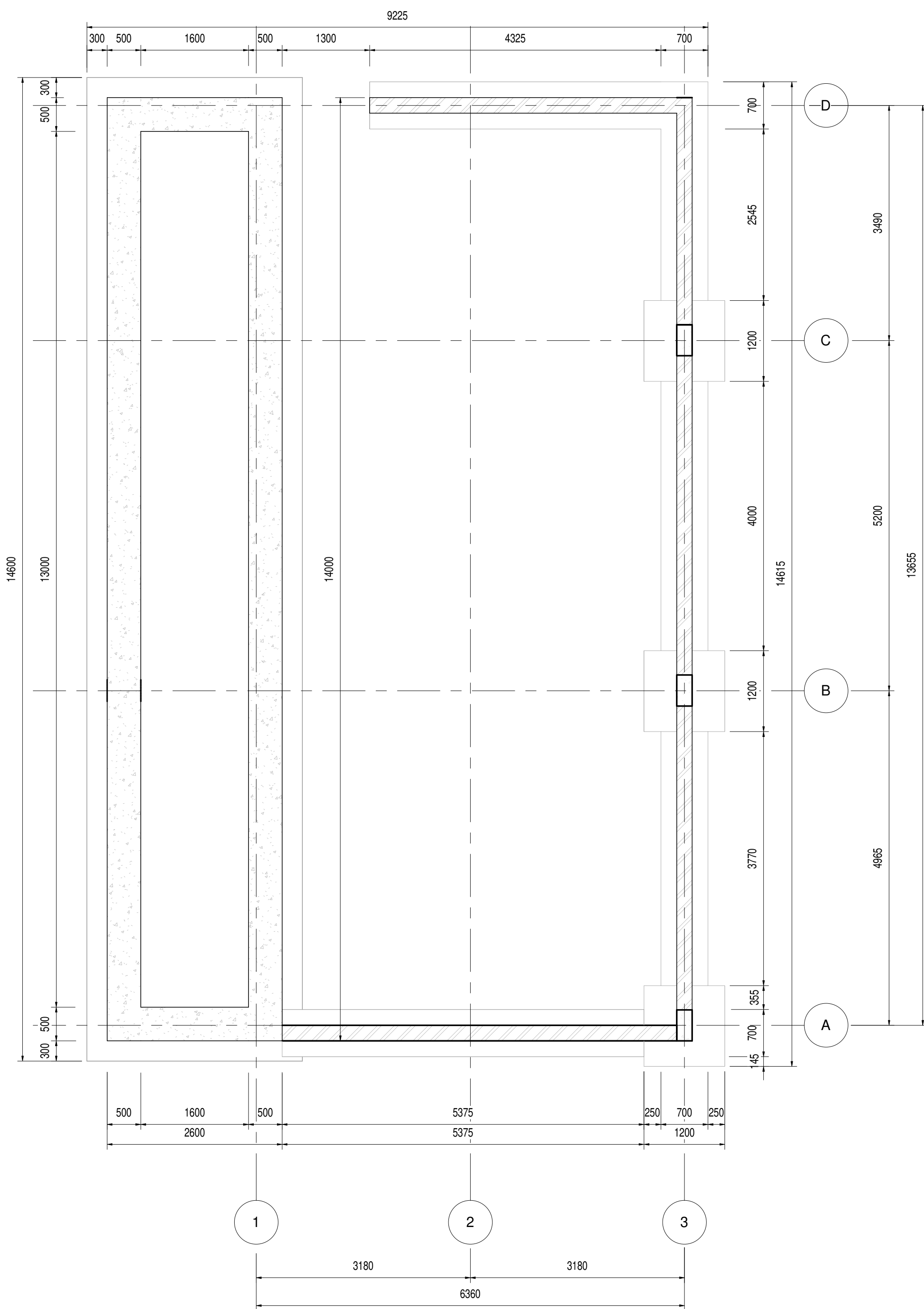
CONSULTING ENGINEERS	
 ZITHOLELE CONSULTING	ZITHOLELE P.O.BOX 6002 HALFWAY HOUSE 1685 TEL. 011-207 2060 FAX. 086 674 6121 EMAIL mail@zitholele.co.

SURVEYED	
DESIGNED	J.S
DRAWN	LC
CHECKED	J.S
SERVICES CHECKED	
GEOTECHNICAL INVESTIGATION	
SERVITUDES	
APPROVED	J. SWART
Pr. Eng. No.	860169
DATE	24.03.2024

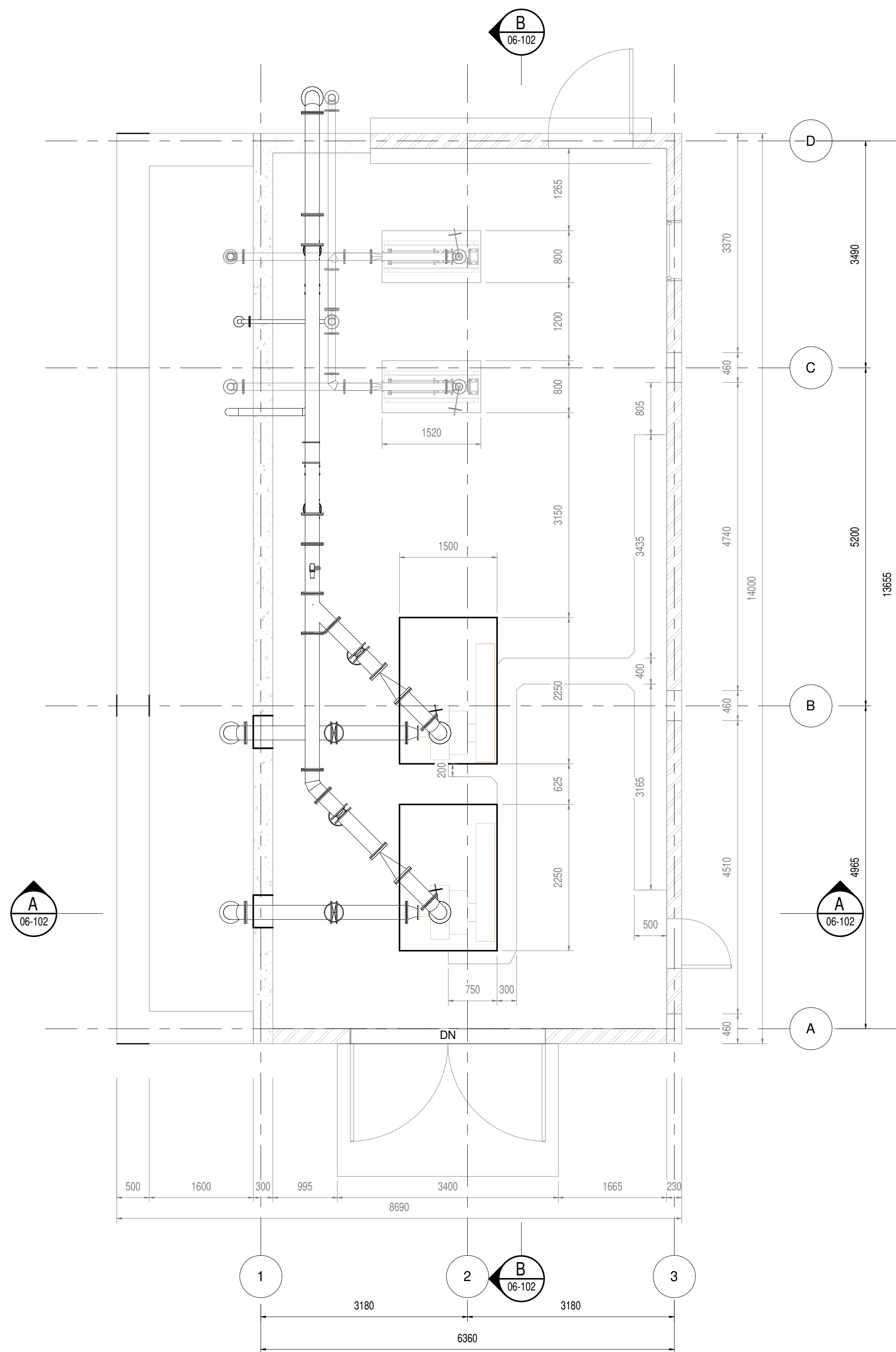
JOHANNESBURG WATER (SOC) LTD	
 Johannesburg Water	TURBINE HALL 65 NTEMI PILISO STREET NEWTOWN TEL: (011) 688 1400 FAX: (011) 688 1529

CITY OF JOHANNESBURG
BUSHKOPPIE WASTEWATER TREATMENT WORKS
EXISTING FINAL EFFLUENT PUMPSTATION
3D VIEWS
AS-BUILT

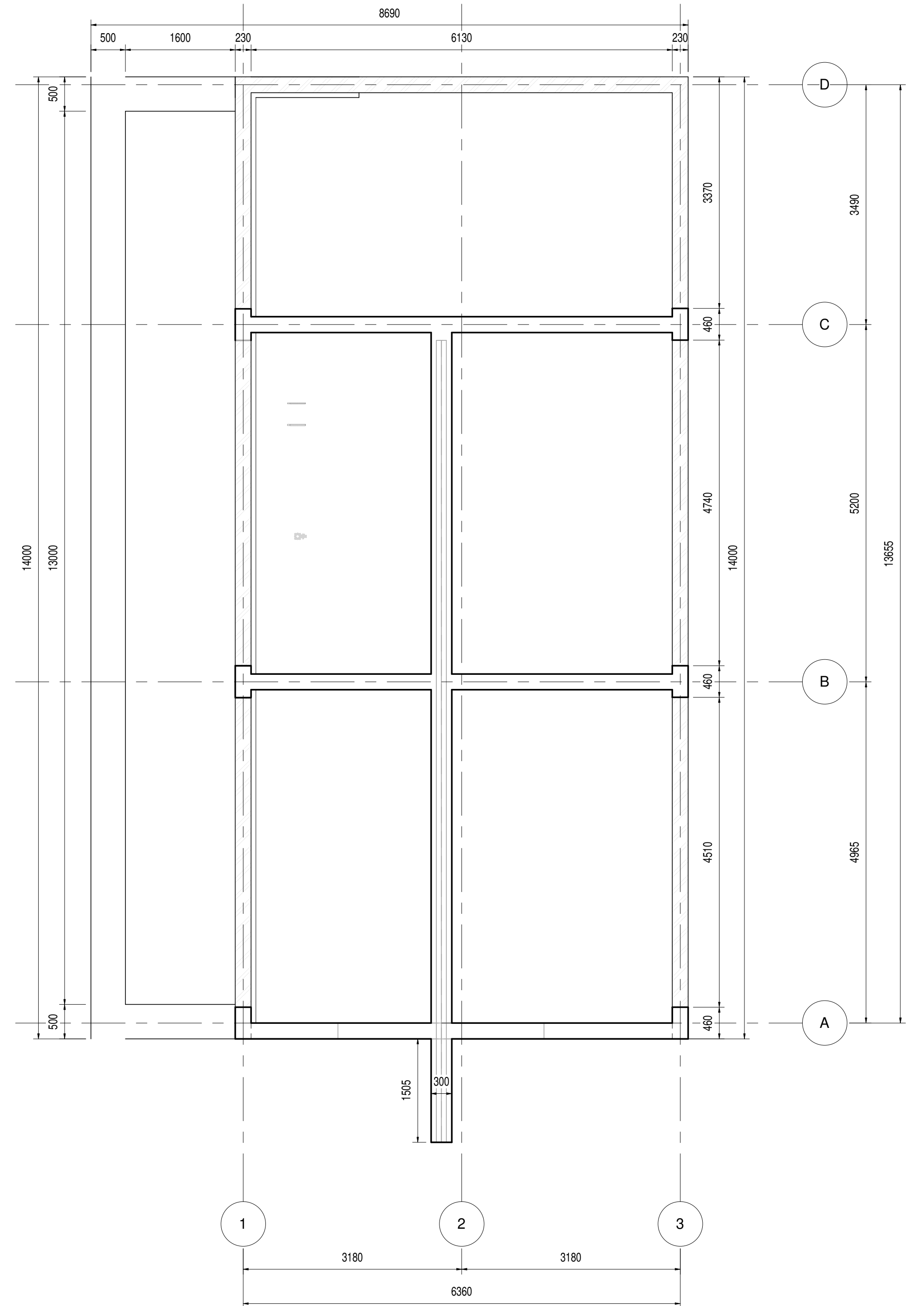
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		T01	ISSUED FOR TENDER	J.H.S	24.03.2024	CONSULTANT'S NUMBER 18056-73-06-100
						FILE NUMBER
DATE						



FOUNDATION LAYOUT
1:50



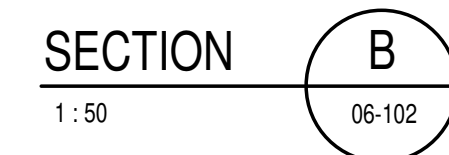
LAYOUT OF EFFLUENT PUMPSTATION
1:50



PLAN OF SUPPORT BEAMS
1:50

DEPARTMENT	APPROVED	DESIGNATION	DATE

CONSULTING ENGINEERS		SURVEYED		JOHANNESBURG WATER (SOC) LTD		CITY OF JOHANNESBURG		DESIGN MANAGER	SCALE	AMENDMENTS		APPROVED	DATE	DRAWING NUMBER
	ZITHOLELE P.O.BOX 6002 HALFWAY HOUSE 1685 TEL. 011-207 2060 FAX. 086 674 6121 EMAIL mail@zitholele.co.za	DESIGNED	J.S	 Johannesburg Water	TURBINE HALL 65 NTEM PILISO STREET NEWTOWN TEL: (011) 688 1400 FAX: (011) 688 1529	BUSHKOPPIE WASTEWATER TREATMENT WORKS				AS SHOWN	T00			
		DRAWN	LC			FINAL EFFLUENT PUMPSTATION		T01	ISSUED FOR TENDER		J.H.S	24.03.2024	CONSULTANT'S NUMBER 18056-73-06-101	
		CHECKED	J.S			PLAN, LAYOUT & SECTIONS							FILE NUMBER	
		SERVICES CHECKED				AS-BUILT								
		GEOTECHNICAL INVESTIGATION												
		SERVICES CHECKED												
		APPROVED	J. SWART					DATE						T 0 1
		Pr. Eng. No.	860169											
		DATE	24.03.2024											



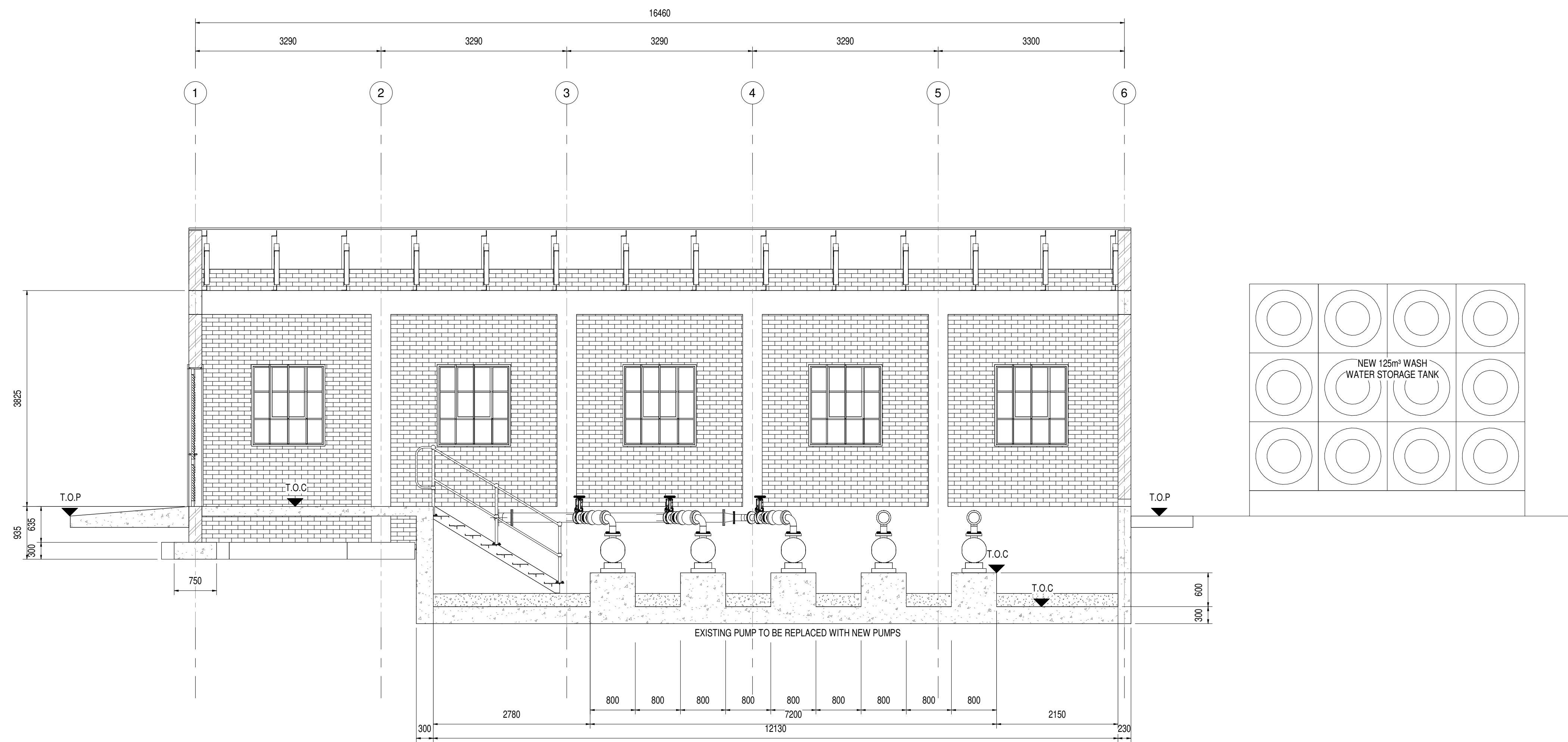
CONSULTING ENGINEERS	
	ZITHOLELE P.O.BOX 6002 HALFWAY HOUSE 1685 TEL. 011-207 2060 FAX. 086 674 6121 EMAIL mail@zitholele.co.za

SURVEYED	
DESIGNED	NG
DRAWN	LC
CHECKED	NG
SERVICES CHECKED	
GEOTECHNICAL INVESTIGATION	
SERVITUDES	
APPROVED	J. SWART
Pr. Eng. No.	860169
DATE	24.03.2024

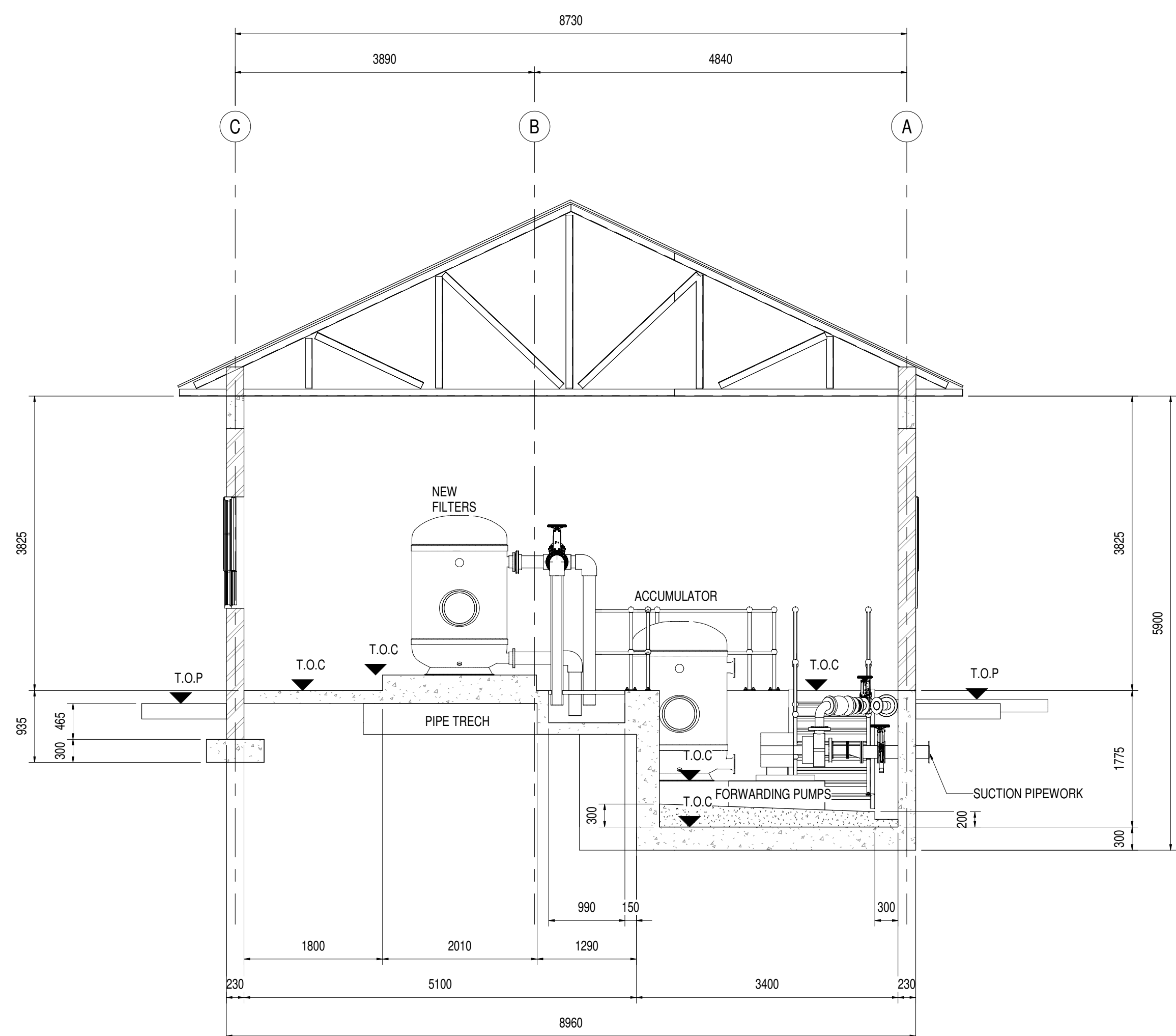
JOHANNESBURG WATER (SOC) LTD	
 Johannesburg Water	TURBINE HALL 65 NTEMI PILISO STREET NEWTOWN TEL: (011) 688 1400 FAX: (011) 688 1529

CITY OF JOHANNESBURG	
BUSHKOPPIE WASTEWATER TREATMENT WORKS	
FINAL EFFLUENT PUMPSTATION	
ELEVATIONS	
REFURBISHMENT	

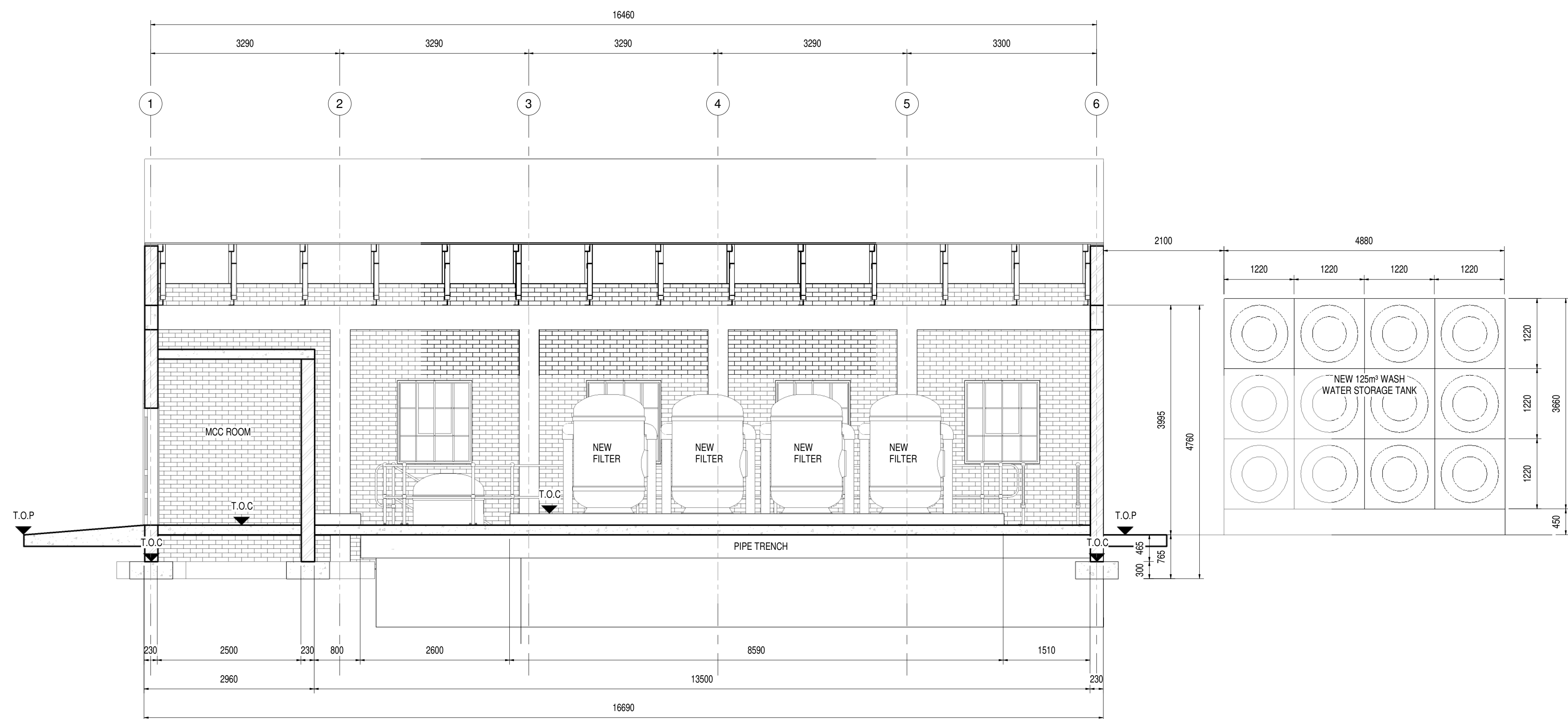
DESIGN MANAGER	SCALE	AMENDMENTS	APPROVED	DATE	DRAWING NUMBER
		T00 ISSUED FOR TENDER	JHS	12.11.2021	JW NUMBER
		T01 ISSUED FOR TENDER	J.H.S	24.03.2024	CONSULTANT'S NUMBER 18056-73-06-102
					FILE NUMBER
DATE					



SECTION A
1:50
07-103



SECTION C
1:50
07-103

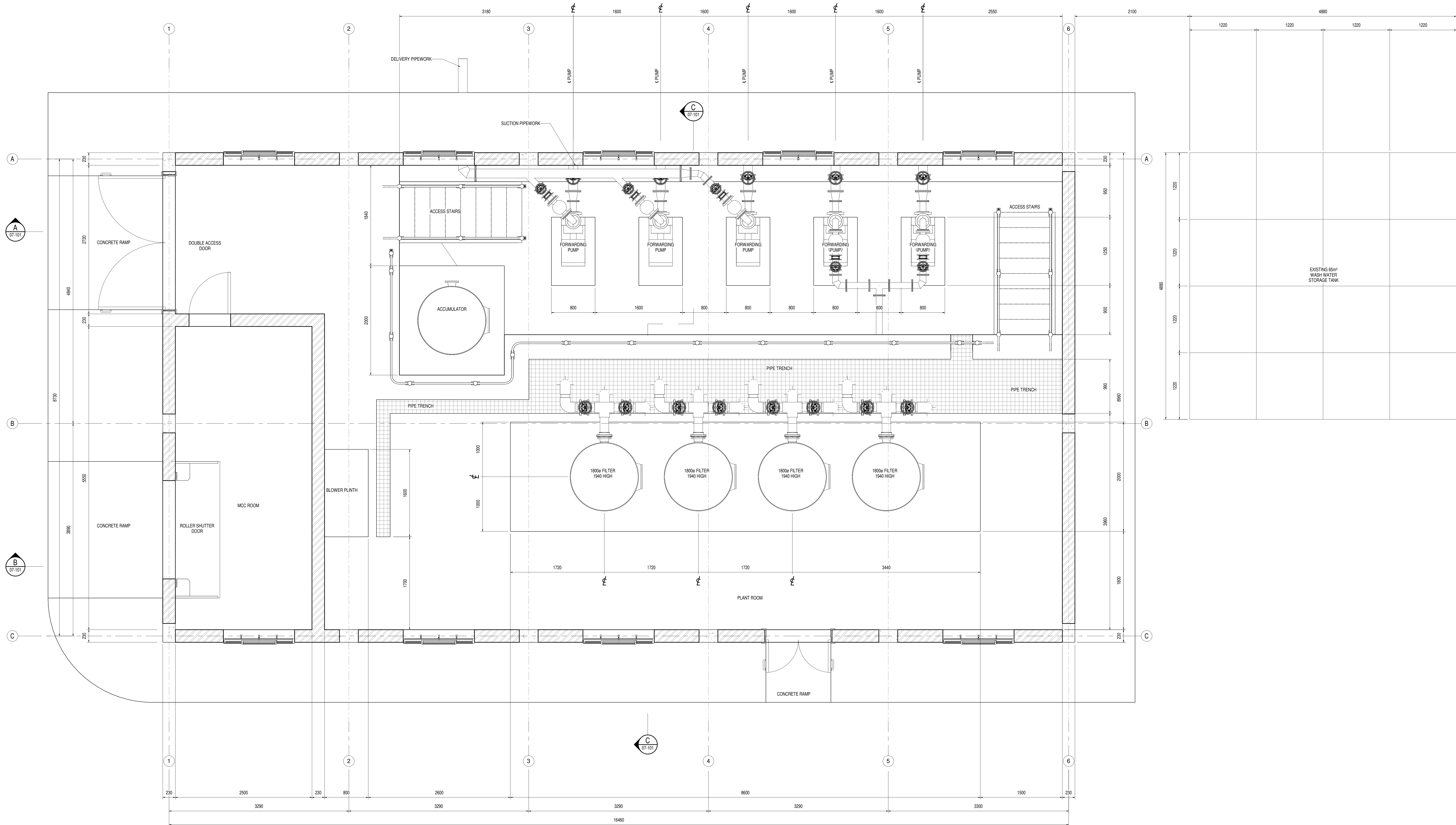


SECTION B
1:50
07-103

- NOTES:**
1. REPLACE EXISTING WASH WATER PUMPS WITH NEW PUMPS AS PER SPECIFICATION.
 2. SUPPLY AND INSTALL GENERATOR AS PER SPECIFICATION.
 3. CONTRACTOR TO ASSESS EXISTING FILTERS.
 4. FILTERS TO BE REFURBISHED OR REPLACED IN ACCORDANCE WITH THE CONDITIONAL ASSESSMENT.

DEPARTMENT	APPROVED	DESIGNATION	DATE

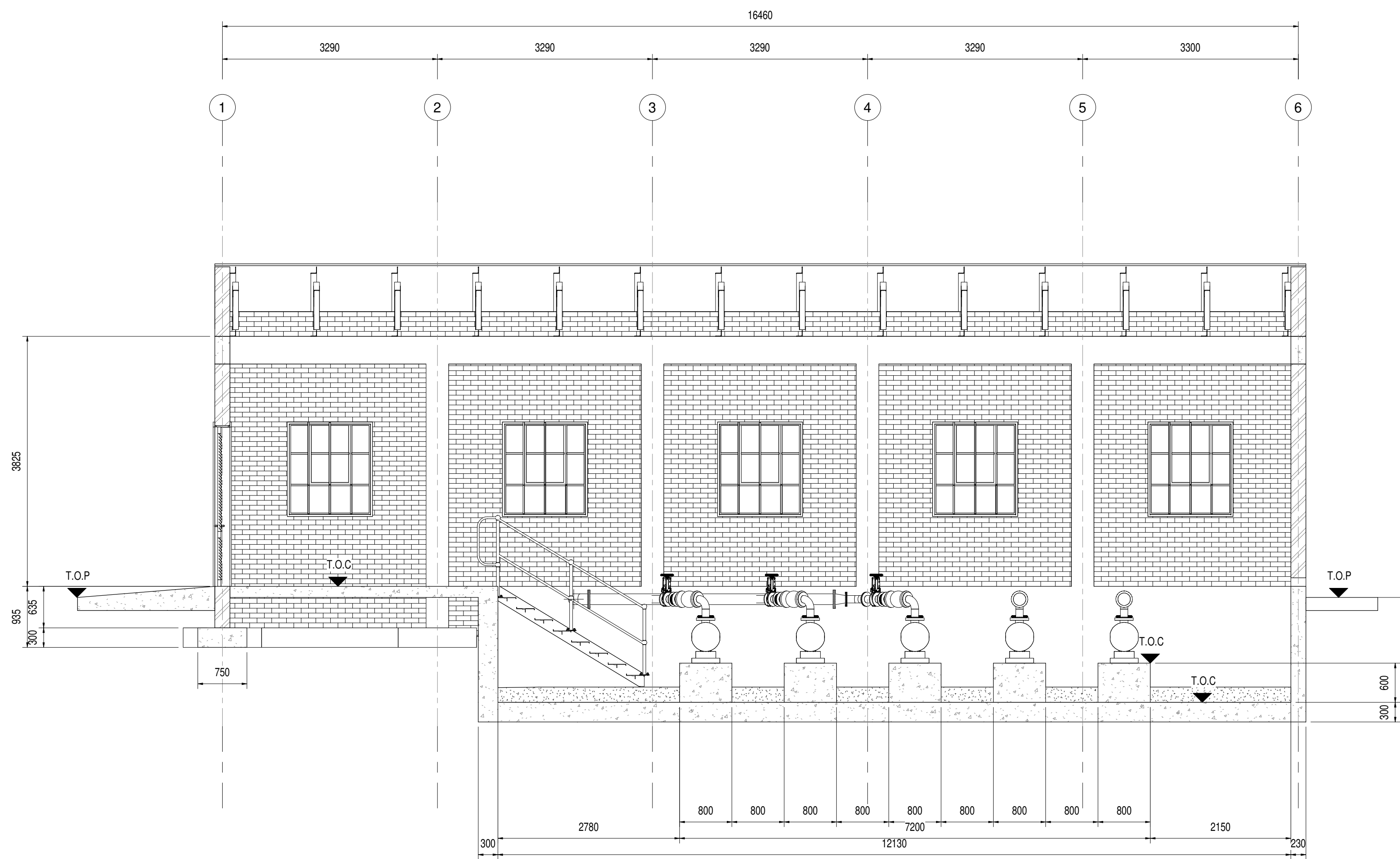
CONSULTING ENGINEERS		SURVEYED		JOHANNESBURG WATER (SOC) LTD		CITY OF JOHANNESBURG				DESIGN MANAGER	SCALE	AMENDMENTS	APPROVED	DATE	DRAWING NUMBER	
	ZITHOLELE P.O.BOX 6002 HALFWAY HOUSE 1685 TEL. 011-207 2060 FAX. 086 674 6121 EMAIL mail@zitholele.co.za	DESIGNED	GK		TURBINE HALL 65 NTEM PILISO STREET NEWTOWN TEL: (011) 688 1400 FAX: (011) 688 1529	BUSHKOPPIE WASTEWATER TREATMENT WORKS INFRASTRUCTURE RENEWAL PLAN WASH WATER PUMP STATION SECTIONS REFURBISHMENT										
		DRAWN	NM													
		CHECKED	GK													
		SERVICES CHECKED														
		GEOTECHNICAL INVESTIGATION														
		SERVITUDES														
APPROVED	JD. KVEVU															
		Pr. Eng. No.	9040106													
		DATE	15.07.2021													
										DATE						



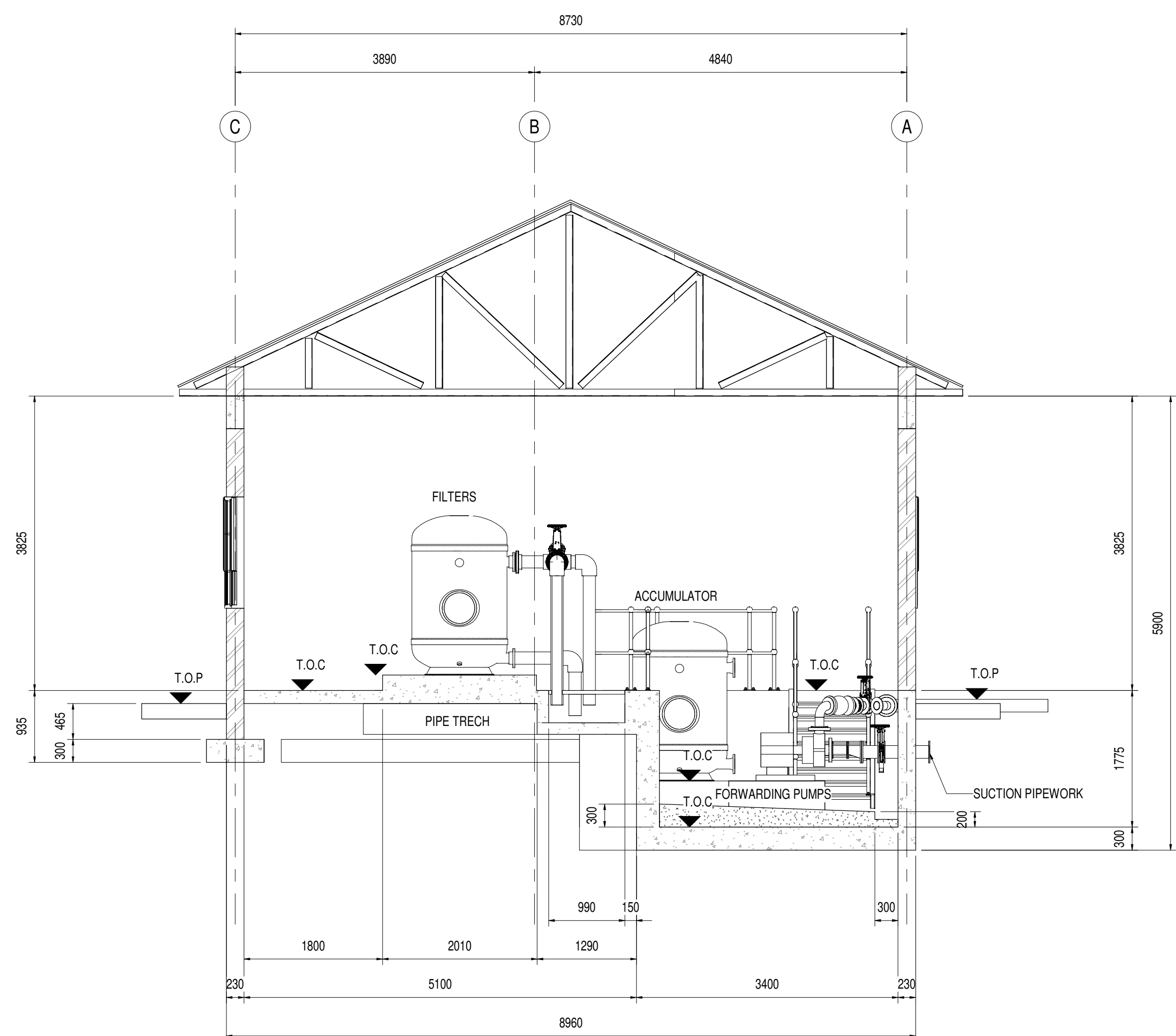
PLAN ON GROUND FLOOR
1:25

DEPARTMENT	APPROVED	DESIGNATION	DATE

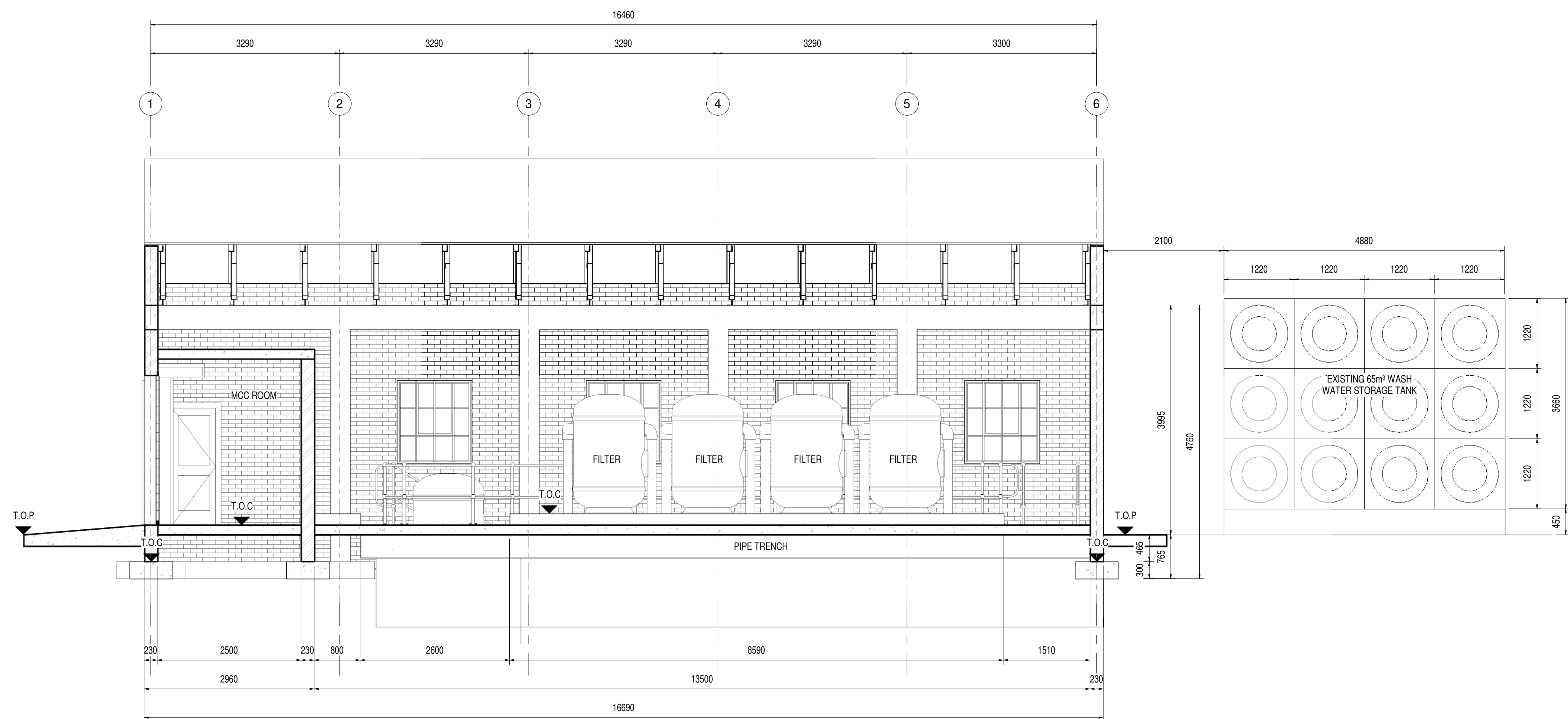
CONSULTING ENGINEERS		JOHANNESBURG WATER (SOC) LTD		CITY OF JOHANNESBURG				DESIGN MANAGER	SCALE	AMENDMENTS	APPROVED	DATE	DRAWING NUMBER		
	ZITHOLELE P.O.BOX 6002 HALFWAY HOUSE 1685 TEL. 011-207 2060 FAX. 086 674 6121 EMAIL mail@zitholele.co.za	SURVEYED	GK		TURBINE HALL 65 NTEM PILISO STREET NEWTOWN TEL: (011) 688 1400 FAX: (011) 688 1529	BUSHKOPPIE WASTEWATER TREATMENT WORKS INFRASTRUCTURE RENEWAL PLAN WASH WATER PUMP STATION PLAN AS BUILT				AS SHOWN	200	AS BUILT	J.H.S	12.11.2021	JW NUMBER
		DESIGNED	NM								T01	ISSUED FOR TENDER	GK	24.03.2024	CONSULTANT'S NUMBER 18056-73-07-100
		DRAWN	GK								FILE NUMBER				
		CHECKED													
		SERVICES CHECKED													
		GEOTECHNICAL INVESTIGATION													
		SERVITUDES													
		APPROVED	J.D. KVEVLI												
		Pr. Eng. No.	9604106												
		DATE	15.07.2021												
DATE															



SECTION A
1:50
07-101



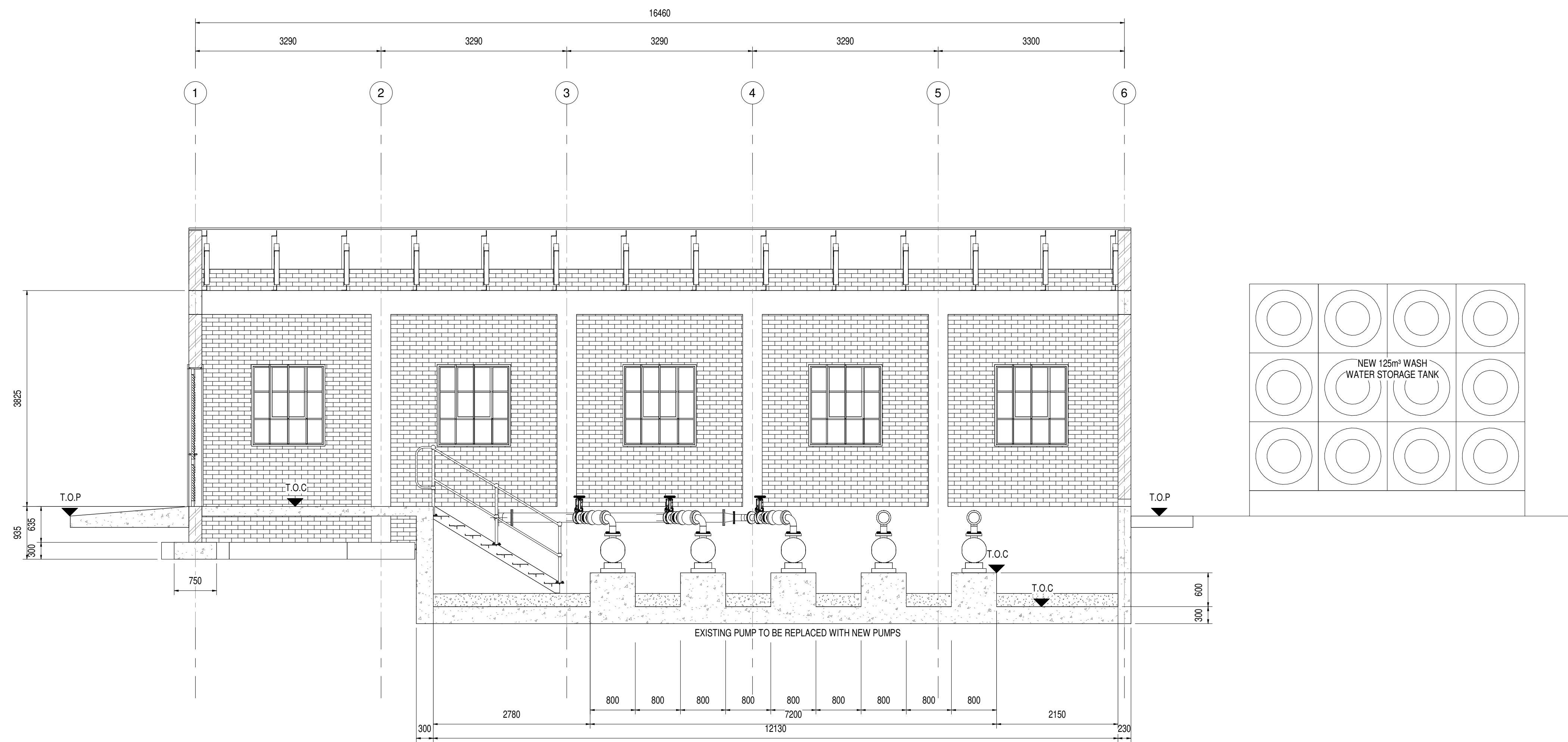
SECTION C
1:50
07-101



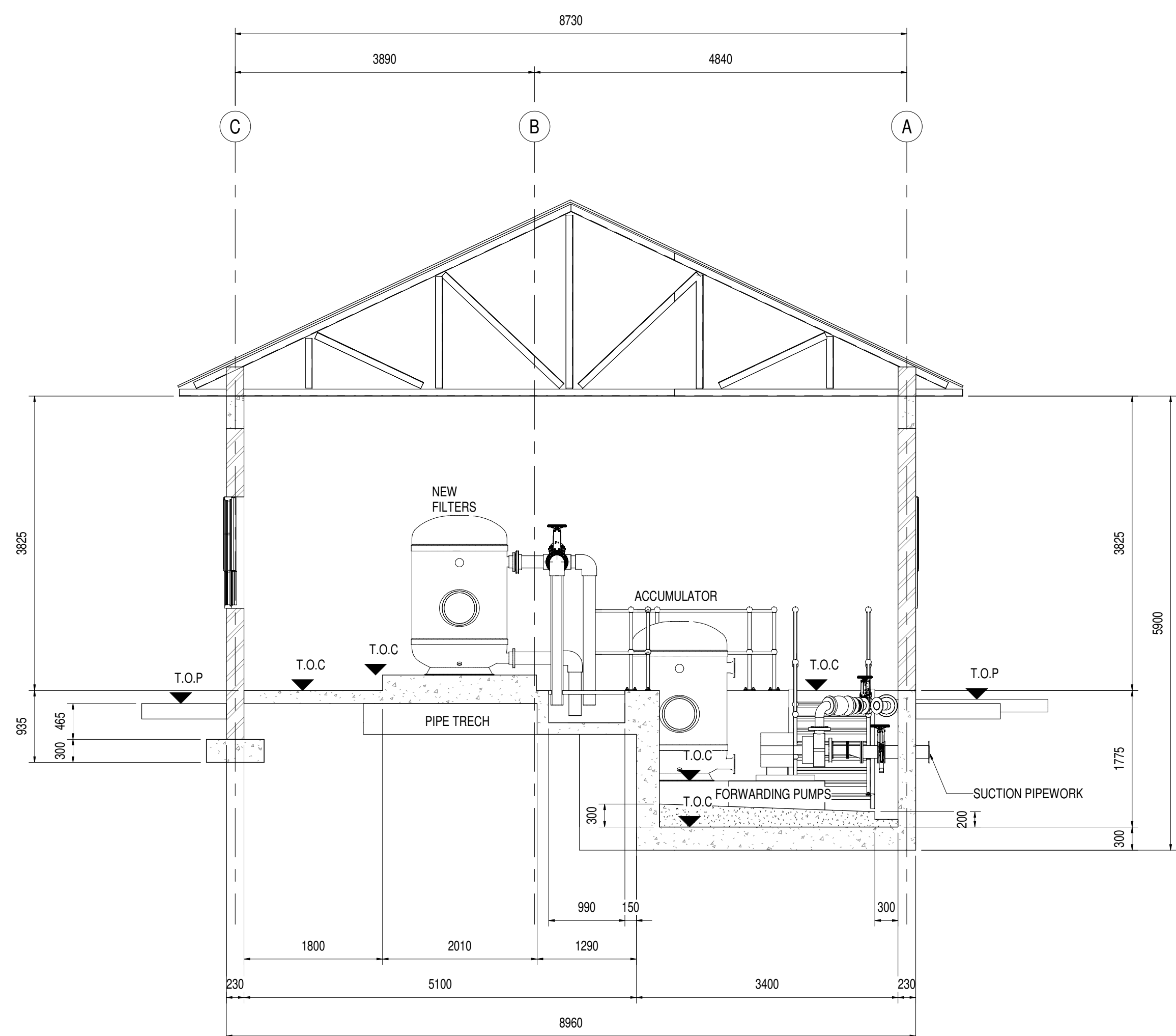
SECTION B
1:50
07-101

DEPARTMENT	APPROVED	DESIGNATION	DATE

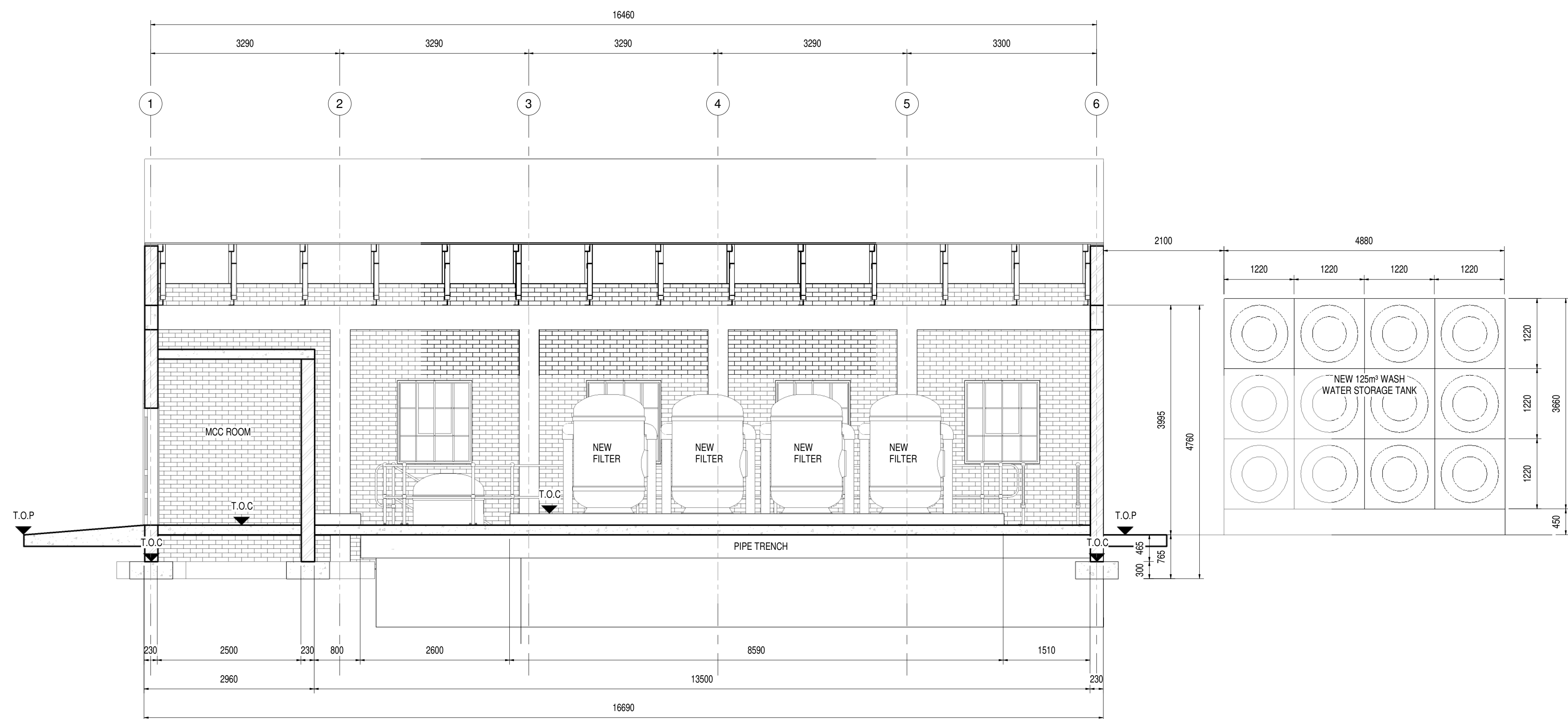
CONSULTING ENGINEERS				JOHANNESBURG WATER (SOC) LTD				CITY OF JOHANNESBURG												DESIGN MANAGER	SCALE	AMENDMENTS			APPROVED	DATE	DRAWING NUMBER																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
ZITHOLELE CONSULTING ZITHOLELE P.O.BOX 6002 HALFWAY HOUSE 1685 TEL. 011-207 2060 FAX. 086 674 6121 EMAIL mail@zitholele.co.za				Johannesburg Water TURBINE HALL 65 NTEM PILISO STREET NEWTOWN TEL: (011) 688 1400 FAX: (011) 688 1529				BUSHKOPPIE WASTEWATER TREATMENT WORKS INFRASTRUCTURE RENEWAL PLAN WASH WATER PUMP STATION SECTIONS AS BUILT												DATE	AS SHOWN	Z00	AS BUILT		J.H.S	12.11.2021	JW NUMBER																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
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SECTION A
1:50
07-103



SECTION C
1:50
07-103

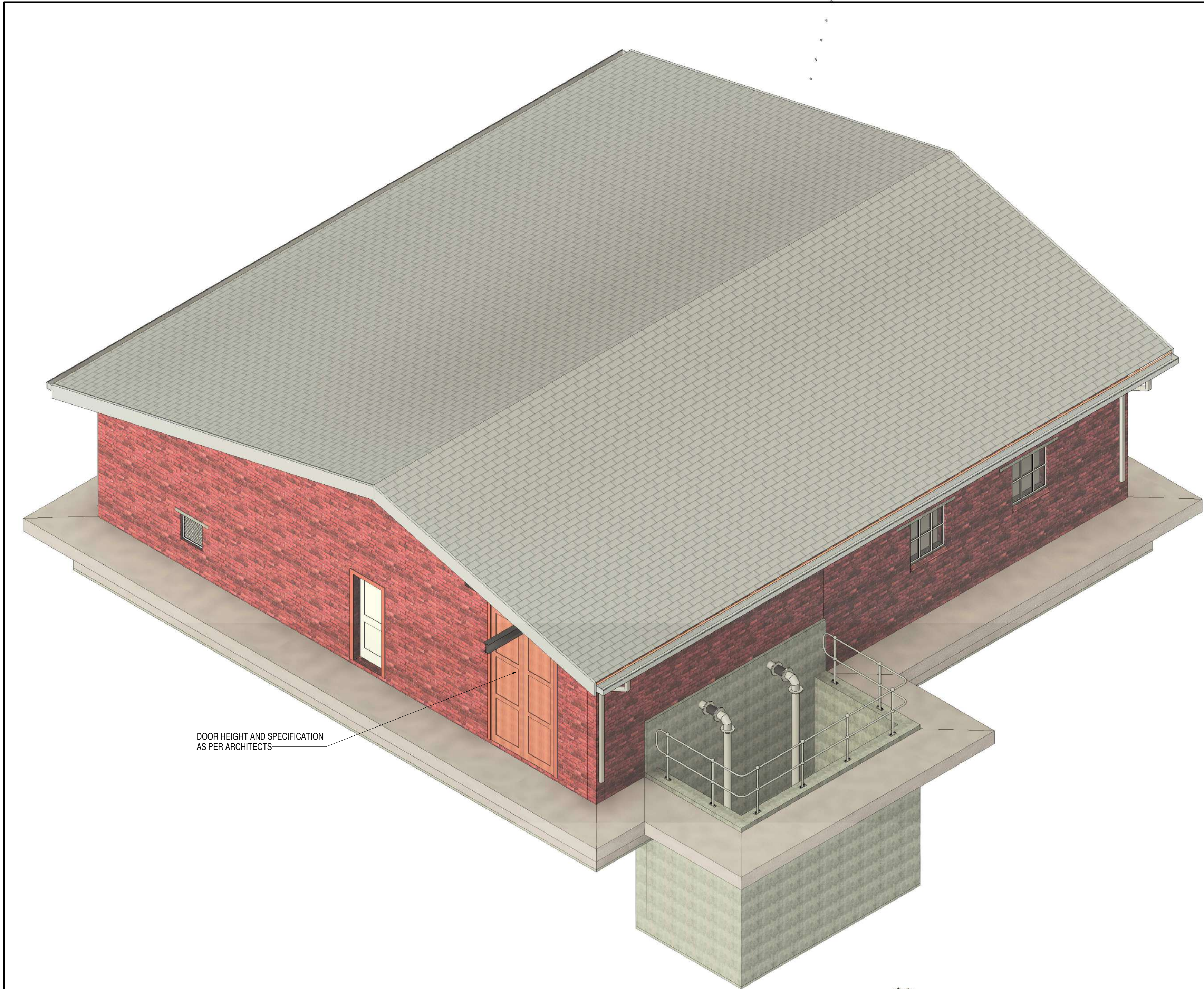


SECTION B
1:50
07-103

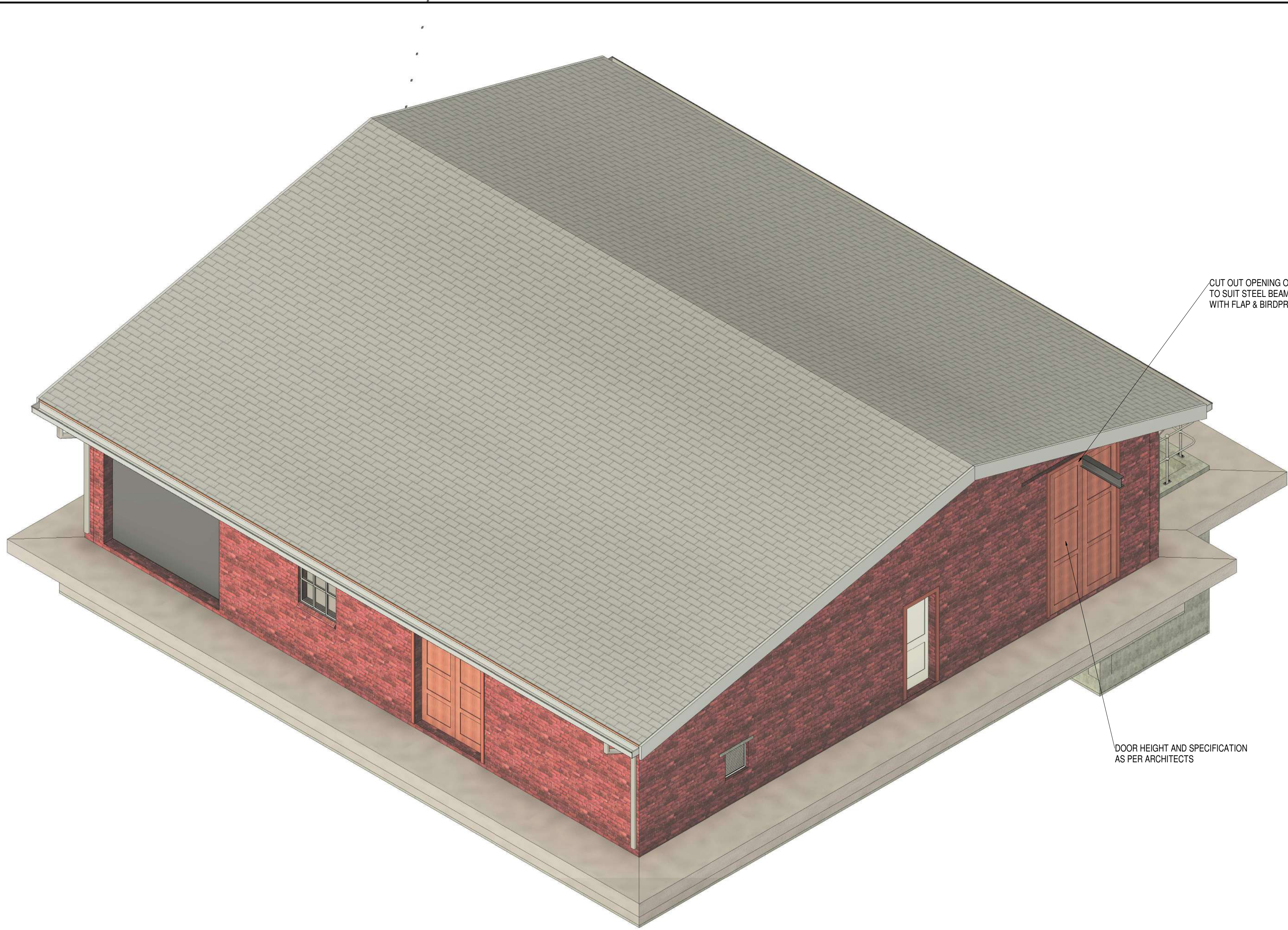
- NOTES:**
1. REPLACE EXISTING WASH WATER PUMPS WITH NEW PUMPS AS PER SPECIFICATION.
 2. SUPPLY AND INSTALL GENERATOR AS PER SPECIFICATION.
 3. CONTRACTOR TO ASSESS EXISTING FILTERS.
 4. FILTERS TO BE REFURBISHED OR REPLACED IN ACCORDANCE WITH THE CONDITIONAL ASSESSMENT.

DEPARTMENT	APPROVED	DESIGNATION	DATE

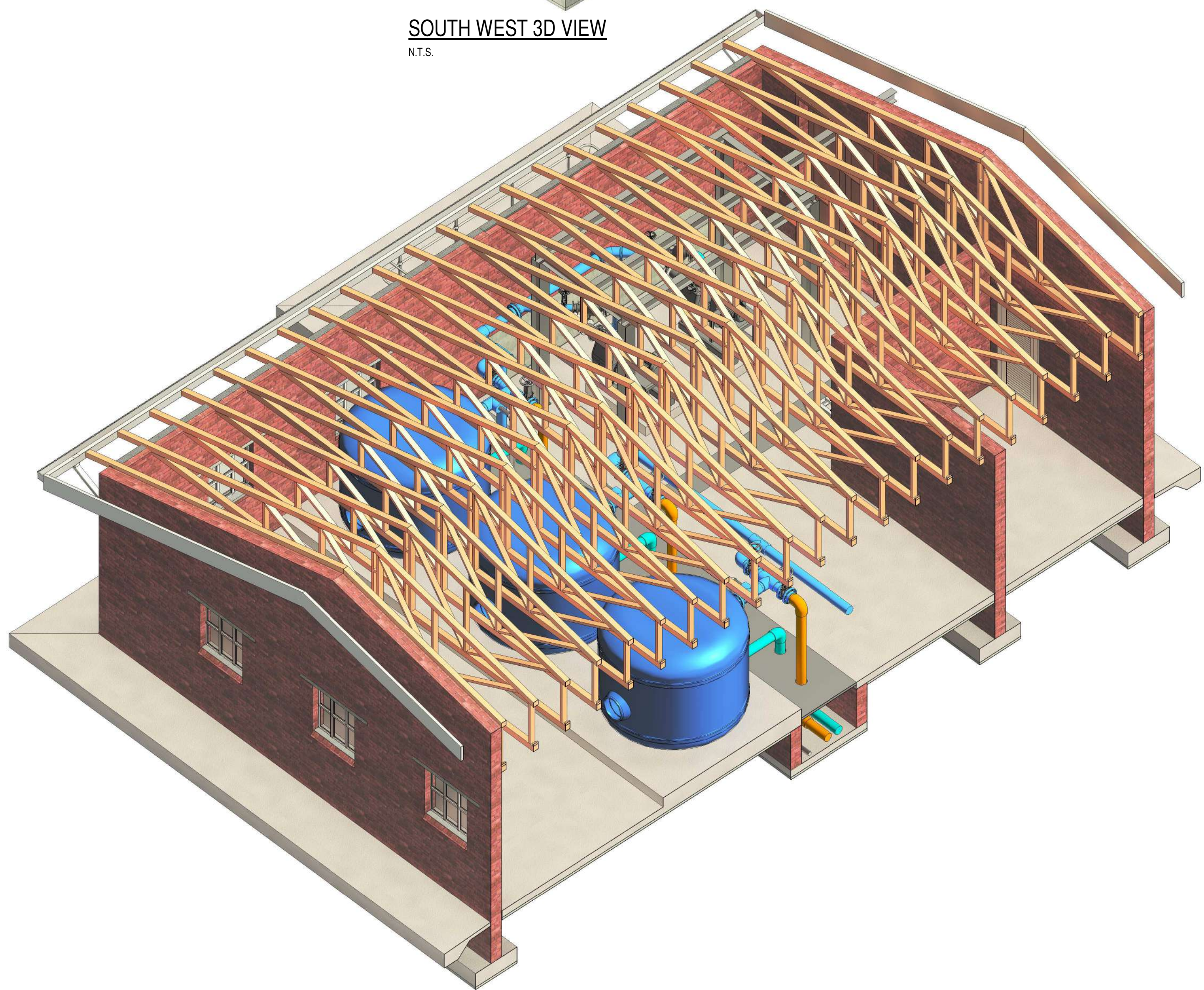
CONSULTING ENGINEERS		SURVEYED		JOHANNESBURG WATER (SOC) LTD		CITY OF JOHANNESBURG				DESIGN MANAGER	SCALE	AMENDMENTS	APPROVED	DATE	DRAWING NUMBER	
	ZITHOLELE P.O.BOX 6002 HALFWAY HOUSE 1685 TEL. 011-207 2060 FAX. 086 674 6121 EMAIL mail@zitholele.co.za	DESIGNED	GK		TURBINE HALL 65 NTEM PILISO STREET NEWTOWN TEL: (011) 688 1400 FAX: (011) 688 1529	BUSHKOPPIE WASTEWATER TREATMENT WORKS INFRASTRUCTURE RENEWAL PLAN WASH WATER PUMP STATION SECTIONS REFURBISHMENT										
		DRAWN	NM													
		CHECKED	GK													
		SERVICES CHECKED														
		GEOTECHNICAL INVESTIGATION														
SERVITUDES																
		APPROVED	JD (01674)													
		Pr. Eng. No.	9604106													
		DATE	15.07.2021													



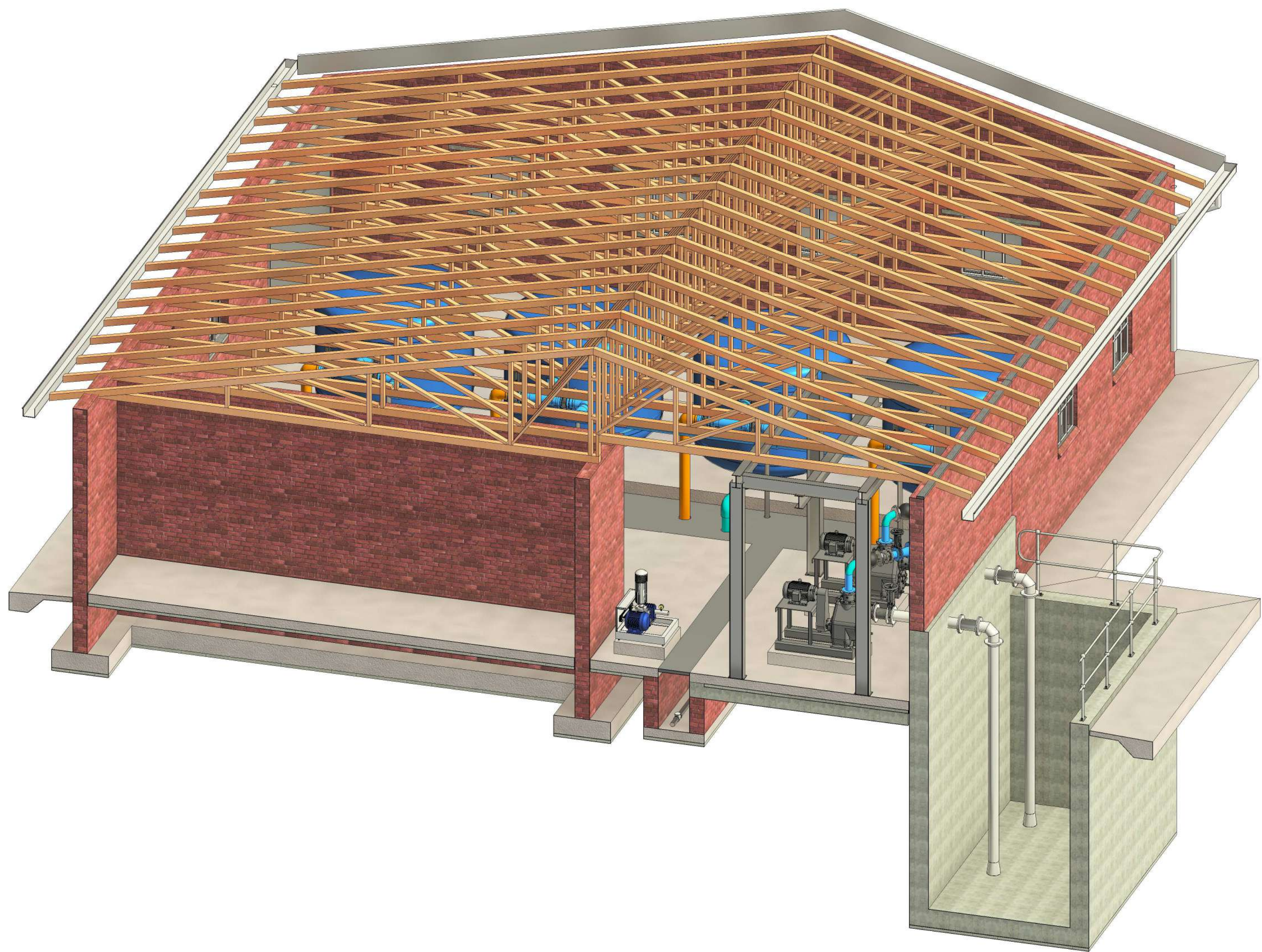
SOUTH WEST 3D VIEW
N.T.S.



NORTH WEST 3D VIEW
N.T.S.



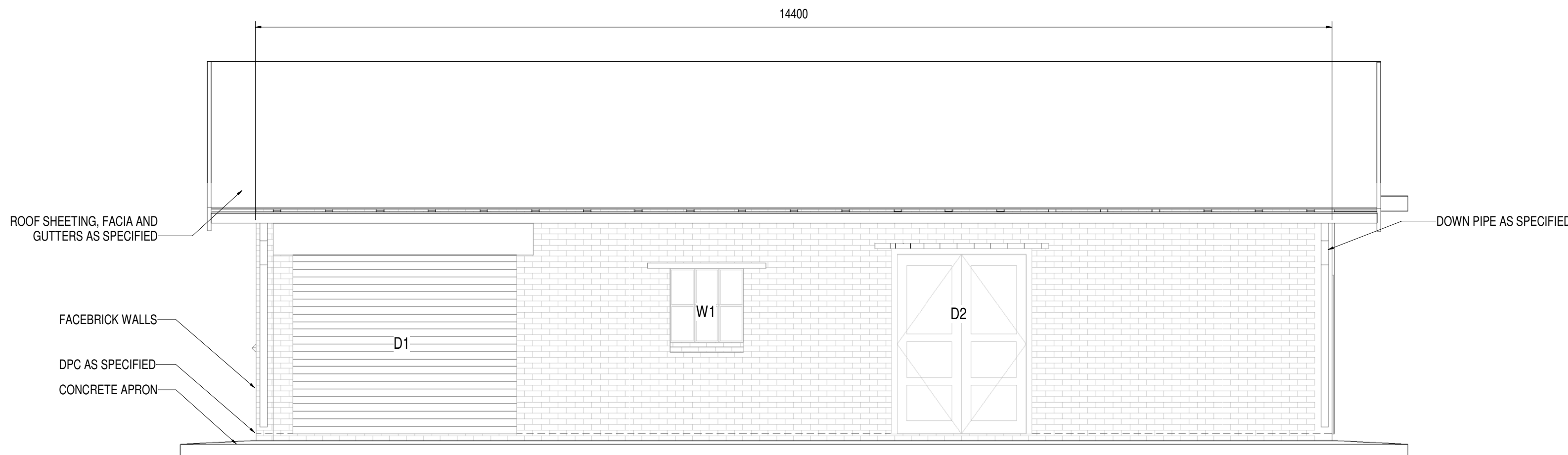
3D SECTION A
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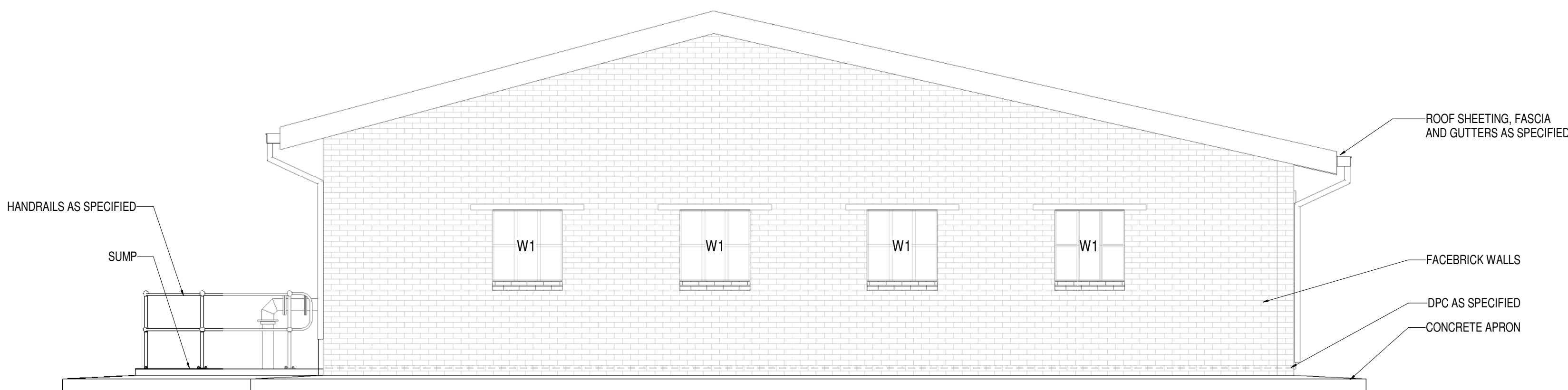
3D SECTION B
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DEPARTMENT	APPROVED	DESIGNATION	DATE

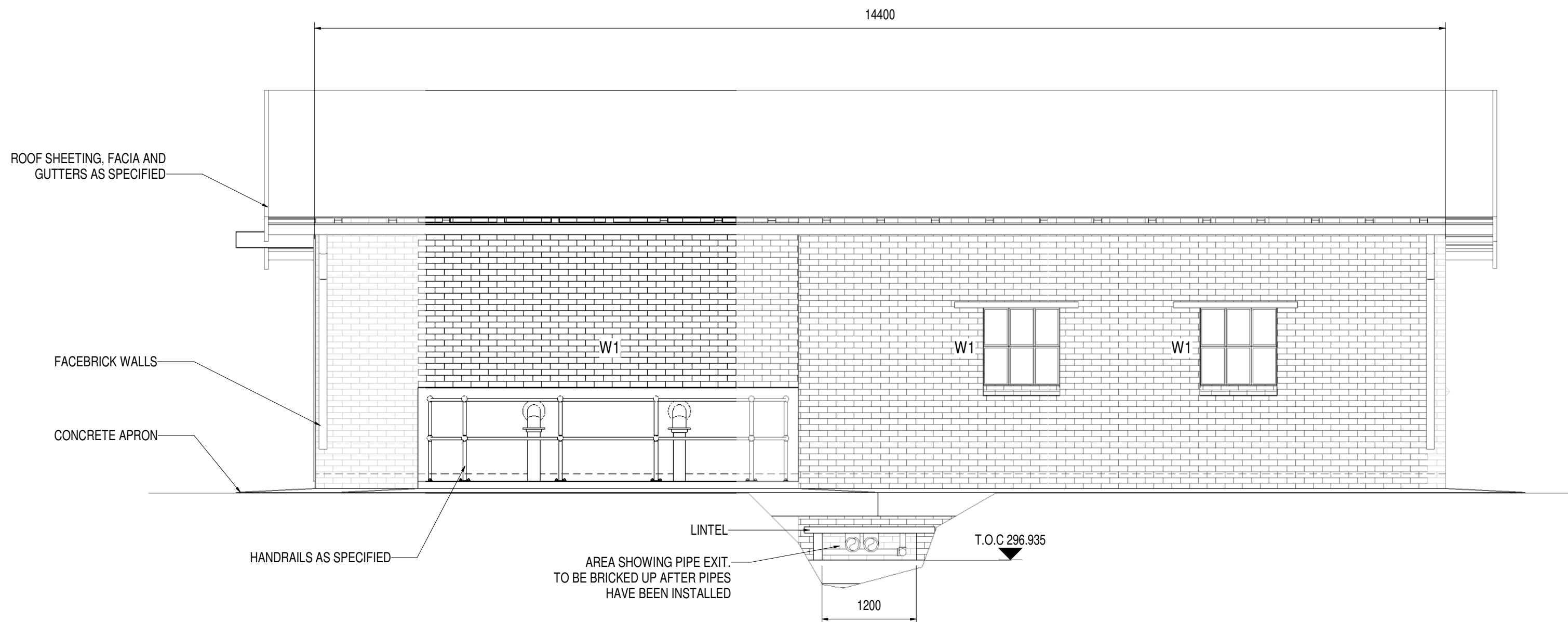
CONSULTING ENGINEERS				SURVEYED		JOHANNESBURG WATER (SOC) LTD		CITY OF JOHANNESBURG				DESIGN MANAGER	SCALE	AMENDMENTS		APPROVED	DATE	DRAWING NUMBER			
	ZITHOLELE P.O.BOX 6002 HALFWAY HOUSE 1685 TEL. 011-207 2060 FAX. 086 674 6121 EMAIL mail@zitholele.co.za			DESIGNED	GK	 Johannesburg Water	TURBINE HALL 65 NTEM PILISO STREET NEWTOWN	BUSHKOPPIE WASTEWATER TREATMENT WORKS INFRASTRUCTURE RENEWAL PLAN NEW WASH WATER FILTER STATION 3D VIEWS						T00	ISSUED FOR TENDER			J.H.S	12.11.2021	JW NUMBER	
				DRAWN	NM									T01	DRAWING UPDATED			GK	24.03.2024	CONSULTANT'S NUMBER	
				CHECKED	GK													18056-07-105			
				SERVICES CHECKED														FILE NUMBER			
				GEOTECHNICAL INVESTIGATION																	
				SERVICES																	
APPROVED	J.D. KUYEVI			TEL: (011) 688 1400																	
	90406			FAX: (011) 688 1529																	
Pr. Eng. No.																					
DATE	24.03.2024																				



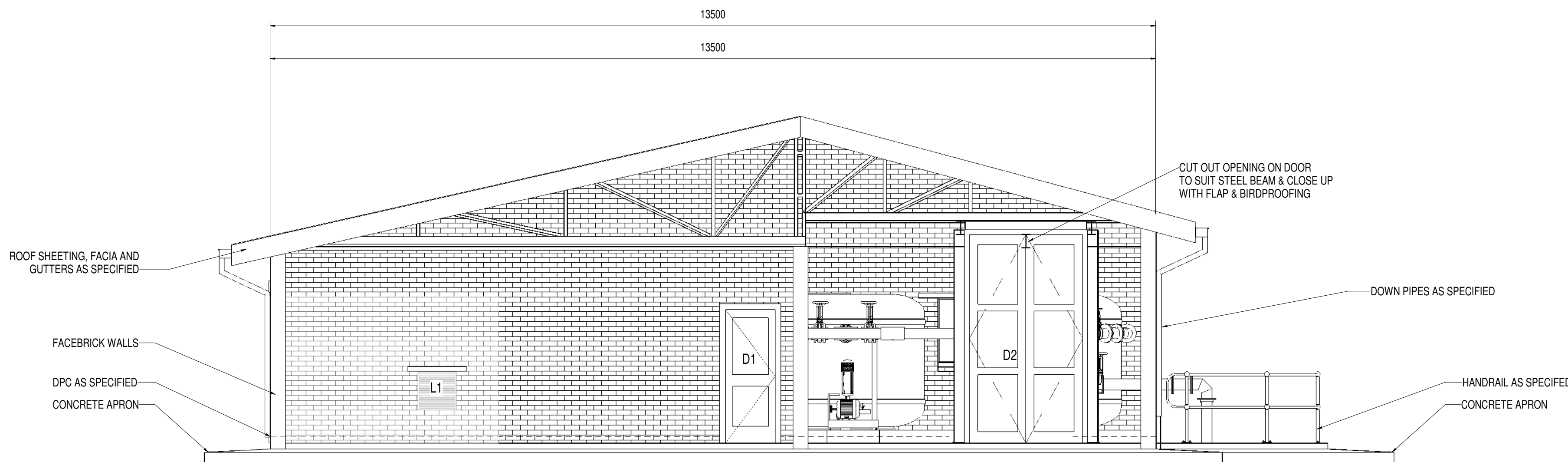
NORTH ELEVATION
1:50



EAST ELEVATION
1:50



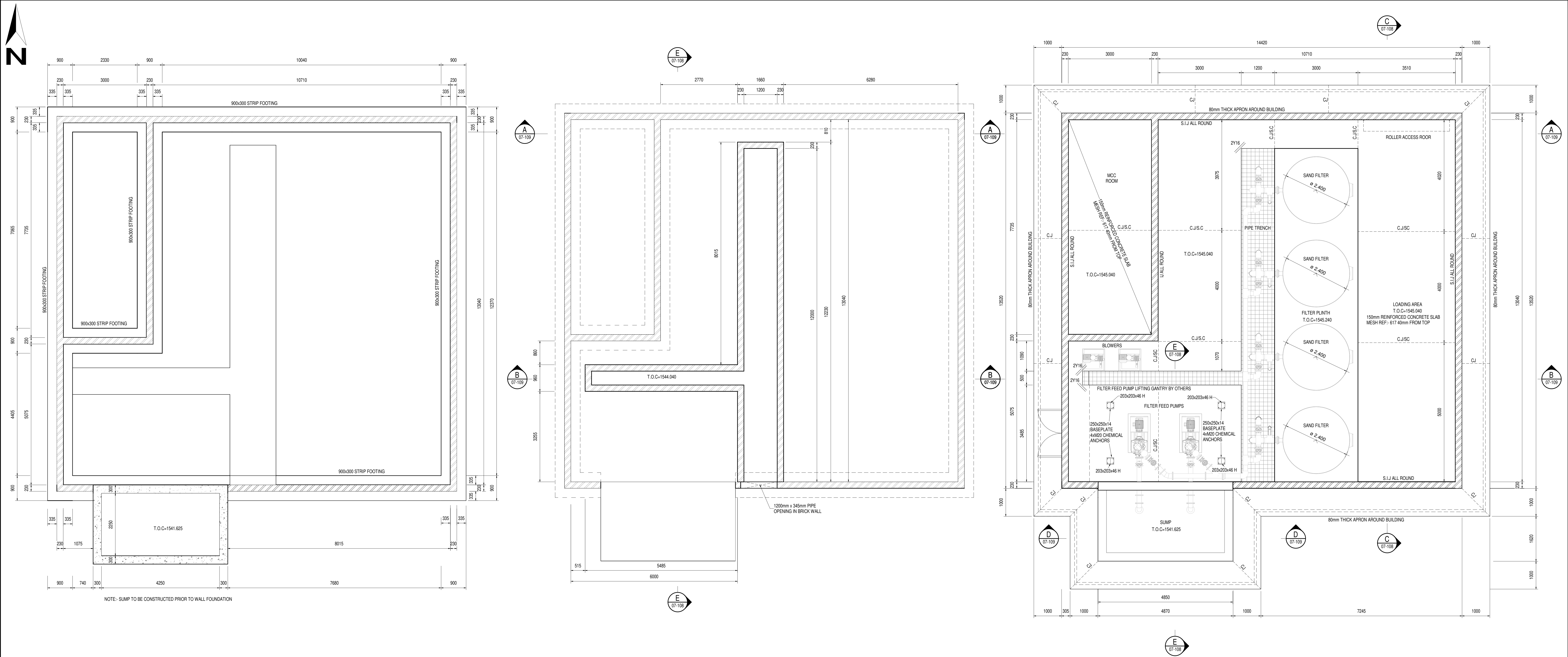
SOUTH ELEVATION
1:50



WEST ELEVATION
1:50

DEPARTMENT	APPROVED	DESIGNATION	DATE

CONSULTING ENGINEERS		SURVEYED		JOHANNESBURG WATER (SOC) LTD		CITY OF JOHANNESBURG					DESIGN MANAGER	SCALE	AMENDMENTS	APPROVED	DATE	DRAWING NUMBER	
	ZITHOLELE P.O.BOX 6002 HALFWAY HOUSE 1685 TEL. 011-207 2060 FAX. 086 674 6121 EMAIL mail@zitholele.co.za	DESIGNED	GK		TURBINE HALL 65 NTEM PILISO STREET NEWTOWN	BUSHKOPPIE WASTEWATER TREATMENT WORKS INFRASTRUCTURE RENEWAL PLAN NEW WASH WATER FILTER STATION ELEVATIONS											DATE
		DRAWN	NM								T01	DRAWING UPDATED	GK	24.03.2024	CONSULTANT'S NUMBER 18056-73-07-106		
		CHECKED	GK								FILE NUMBER						
		SERVICES CHECKED															
		GEOTECHNICAL INVESTIGATION															
		SERVICES															
		APPROVED	J.D. KVEVLI														
		Pr. Eng. No.	960406														
		DATE	24.03.2024														



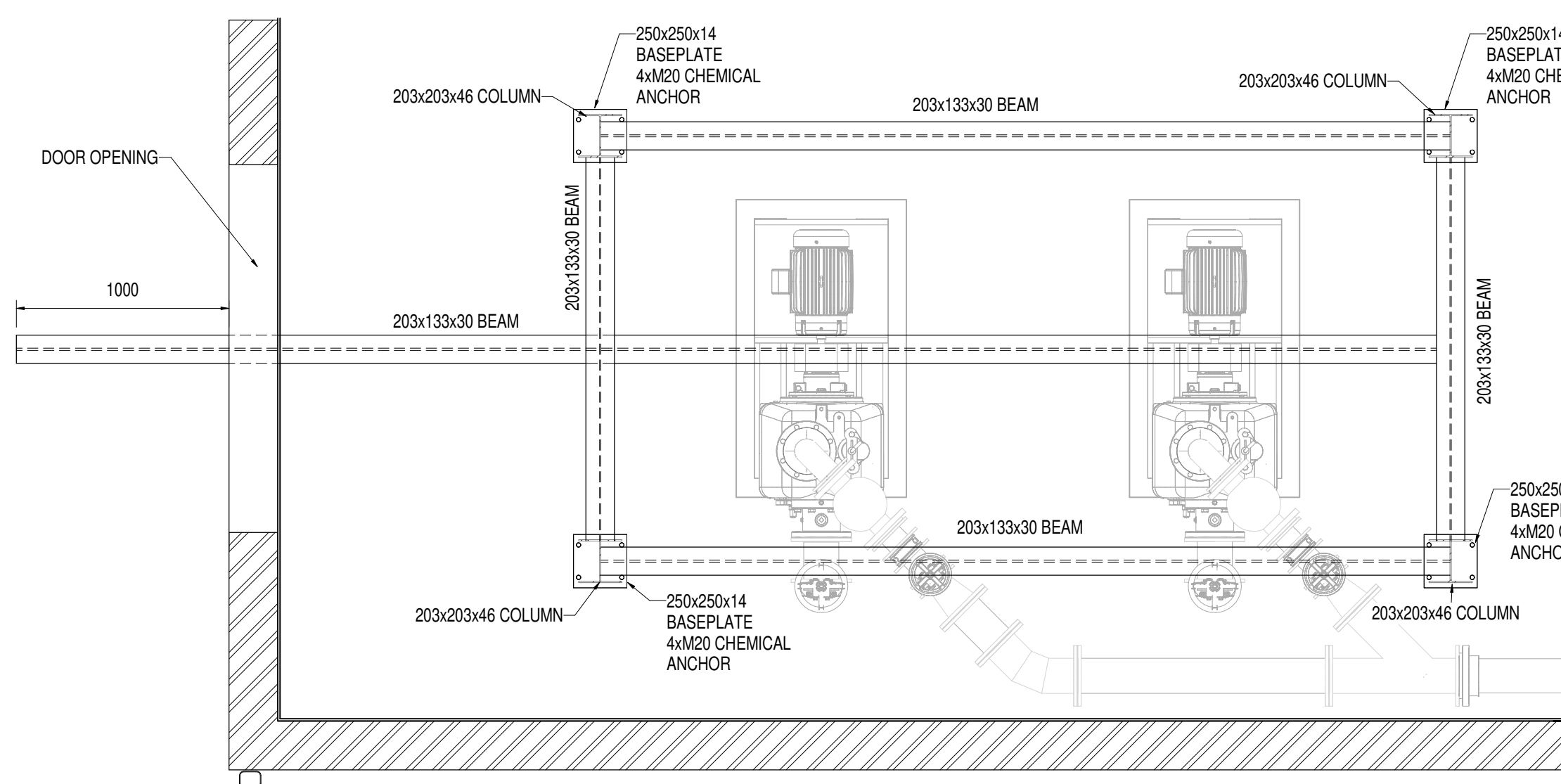
FOUNDATION LAYOUT
1:50

TRENCH LAYOUT
1:50

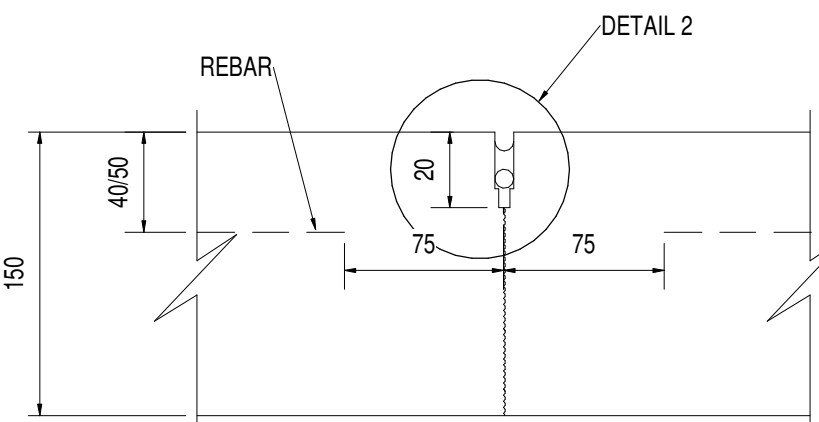
GROUND FLOOR LAYOUT
1:50

GENERAL NOTES AND SPECIFICATION'S:

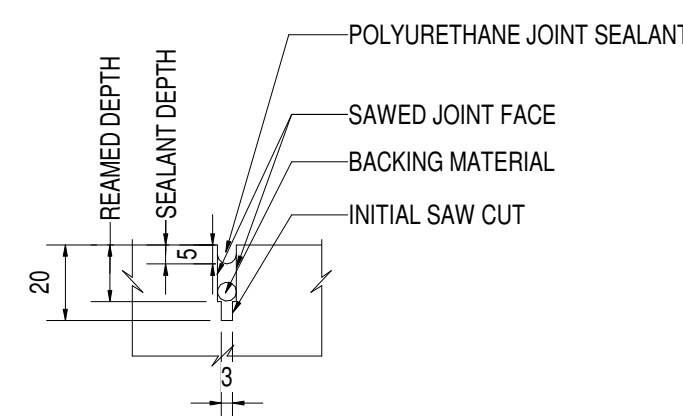
- ALL DIMENSIONS AND LEVELS MUST BE CHECKED ON SITE. ANY DISCREPANCIES ON THE DRAWINGS MUST BE BROUGHT TO THE ATTENTION OF THE ENGINEER TO RECTIFY.
- THE CONSTRUCTION OF ALL CONCRETE WORK MUST COMPLY WITH THE REQUIREMENTS OF SANS 2001:2007 PART C01: CONCRETE WORKS (STRUCTURAL) AND PART C02: CONCRETE WORKS (MINOR WORKS).
- THE CONSTRUCTION OF ALL MASONRY WORK MUST COMPLY WITH SANS 2001:CM1:2007 MASONRY WALLING.
- THE CONSTRUCTION OF ALL STRUCTURAL STEELWORK MUST COMPLY WITH SANS 2001:CS:2005. STRUCTURAL STEELWORK.
- THE SIZE, POSITION AND LEVEL OF ALL OPENINGS FOR PIPEWORK TO BE CAST-IN AND VALVE PLINTHS & PIPE SUPPORTS SHOWN ON THE CIVIL AND STRUCTURAL DRAWINGS ARE PROVISIONAL AND MUST BE CONFIRMED AND APPROVED BY THE MECHANICAL SUPPLIER IN WRITING BEFORE CONSTRUCTION COMMENCES.
- CONCRETE CLASSES (UNLESS OTHERWISE SPECIFIED IN THE PROJECT SPECIFICATIONS):
 - STRUCTURAL CONCRETE: CLASS 35/19 (35 MPa)
 - BENCHING: CLASS 20/19 (20 MPa)
 - BLINDING: CLASS 15/19 (15 MPa)
- CONCRETE COVER TO REINFORCEMENT SHALL BE 50mm UNLESS OTHERWISE SHOWN OR SPECIFIED.
- ALL EXPOSED CONCRETE CORNERS SHALL HAVE A 25mm CHAMFER UNLESS OTHERWISE INDICATED OR SPECIFIED.
- THE POSITIONS OF CONSTRUCTION JOINTS SHALL BE AS SHOWN ON THE DRAWINGS, OR AS AGREED UPON BETWEEN THE ENGINEER AND THE CONTRACTOR BEFORE CONSTRUCTION COMMENCES. NO DEVIATION FROM THE CONSTRUCTION JOINT POSITIONS SHOWN ON THE DRAWINGS SHALL BE PERMITTED WITHOUT THE WRITTEN APPROVAL OF THE ENGINEER.
- STEEL FORMWORK/SHUTTERING SHALL BE USED IN THE CONSTRUCTION OF ALL CONCRETE STRUCTURES UNLESS OTHERWISE APPROVED IN WRITING BY THE ENGINEER.
- FORMED SURFACE REQUIREMENTS SHALL BE AS SPECIFIED IN THE PROJECT SPECIFICATIONS.
- THE DEGREE OF ACCURACY SHALL BE AS SPECIFIED IN THE PROJECT SPECIFICATIONS. THE DEGREE OF ACCURACY OF FINISHES SPECIFIED FOR FLOATED CONCRETE FINISHES IN PARTICULAR MUST BE STRICTLY COMPLIED WITH.
- NO CONCRETE SHALL BE CAST WITHOUT PRIOR WRITTEN APPROVAL FROM THE ENGINEER.



CRAWL BEAM LAYOUT
1:25

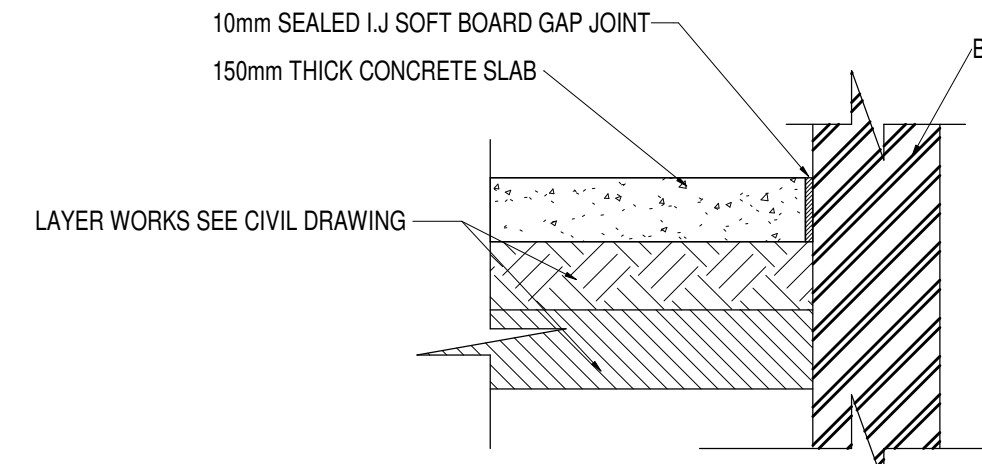


TYPICAL SAW CUT JOINT DETAIL
NTS



TYPICAL SAW CUT DETAIL
DETAIL 2

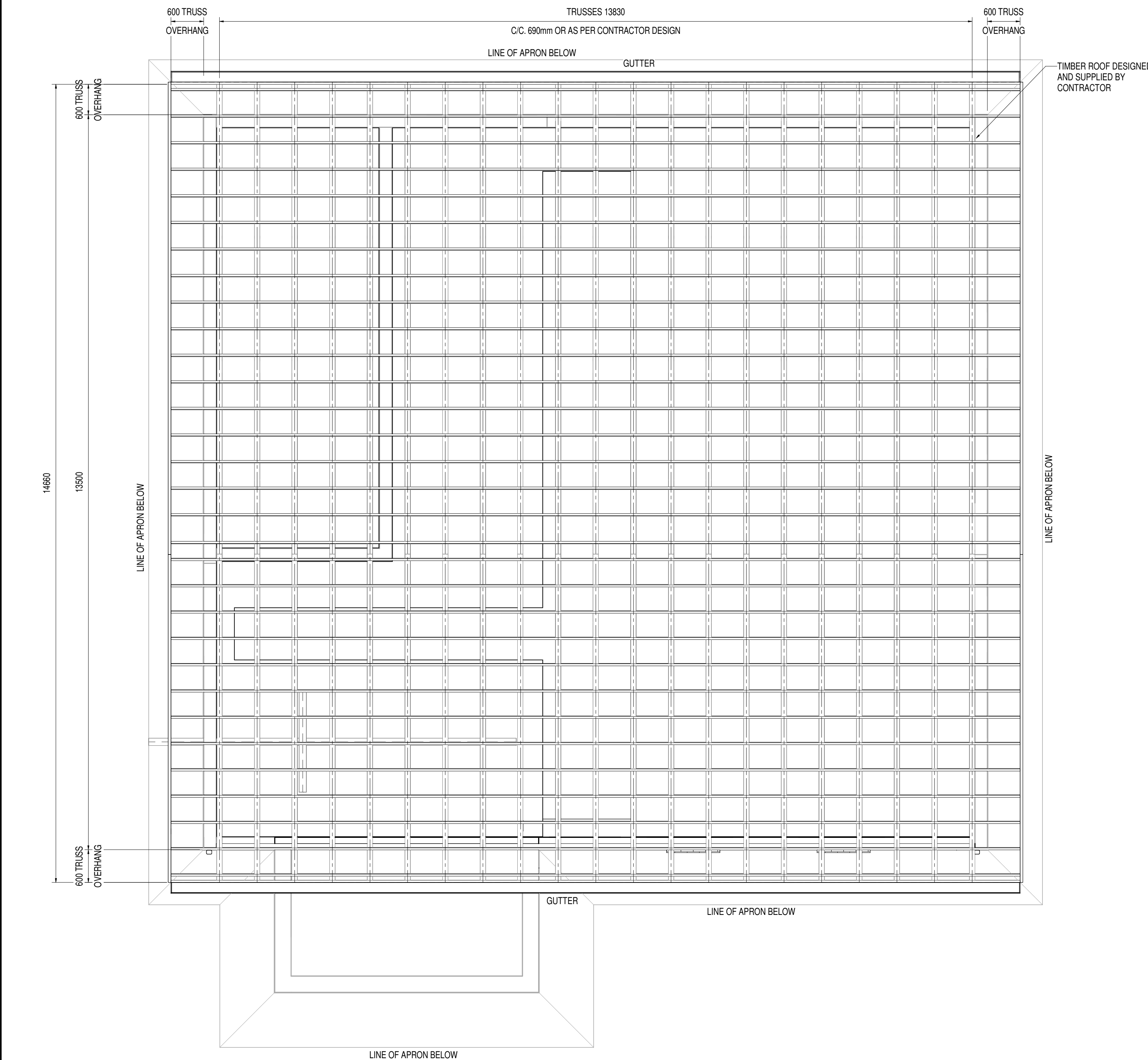
S.I.J. = SEALED ISOLATION JOINT
I.J. = ISOLATION JOINT
C.J. = CONSTRUCTION JOINT
S.C. = SAW CUT JOINT



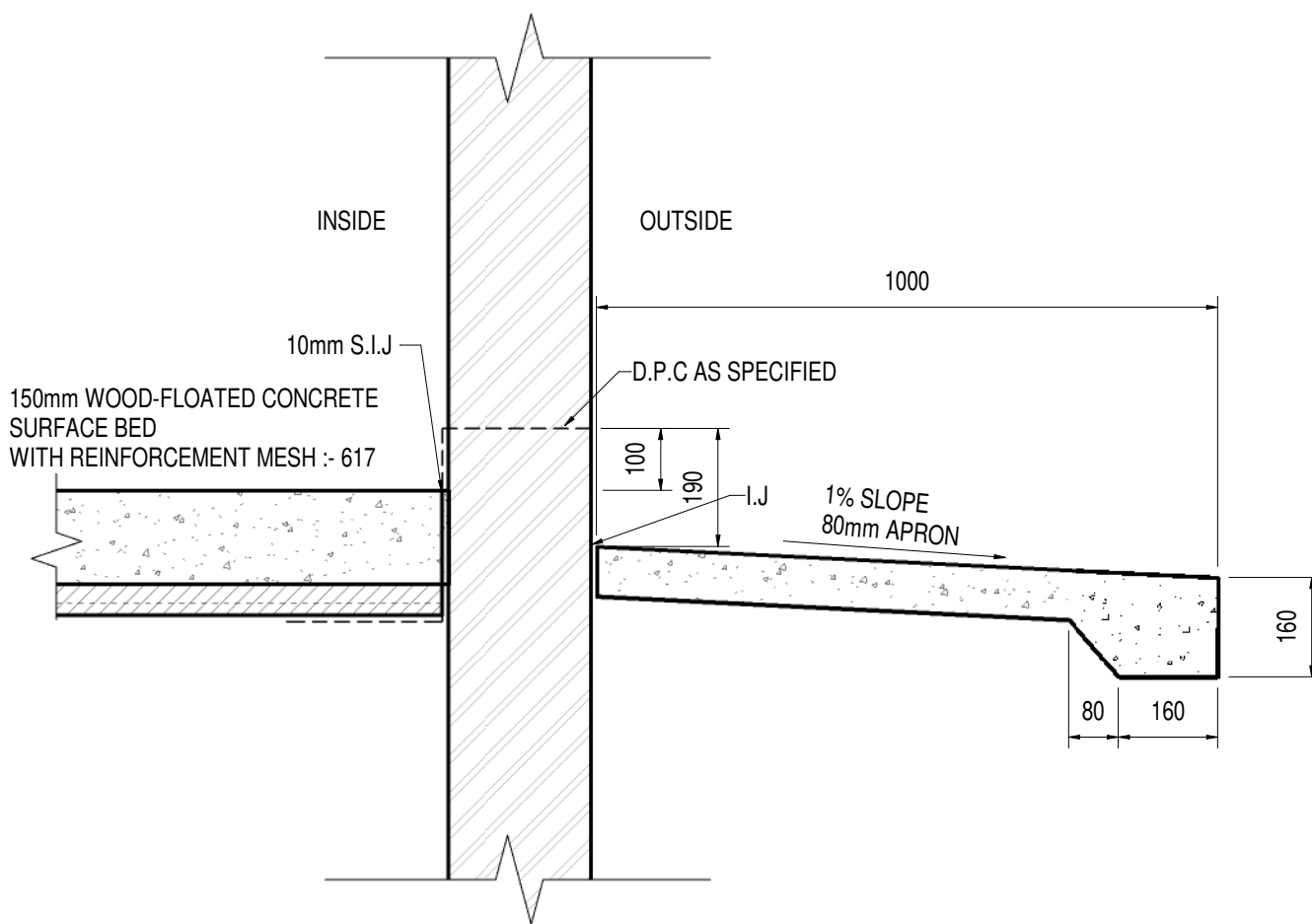
TYPICAL ISOLATION JOINT DETAIL
NTS

DEPARTMENT	APPROVED	DESIGNATION	DATE

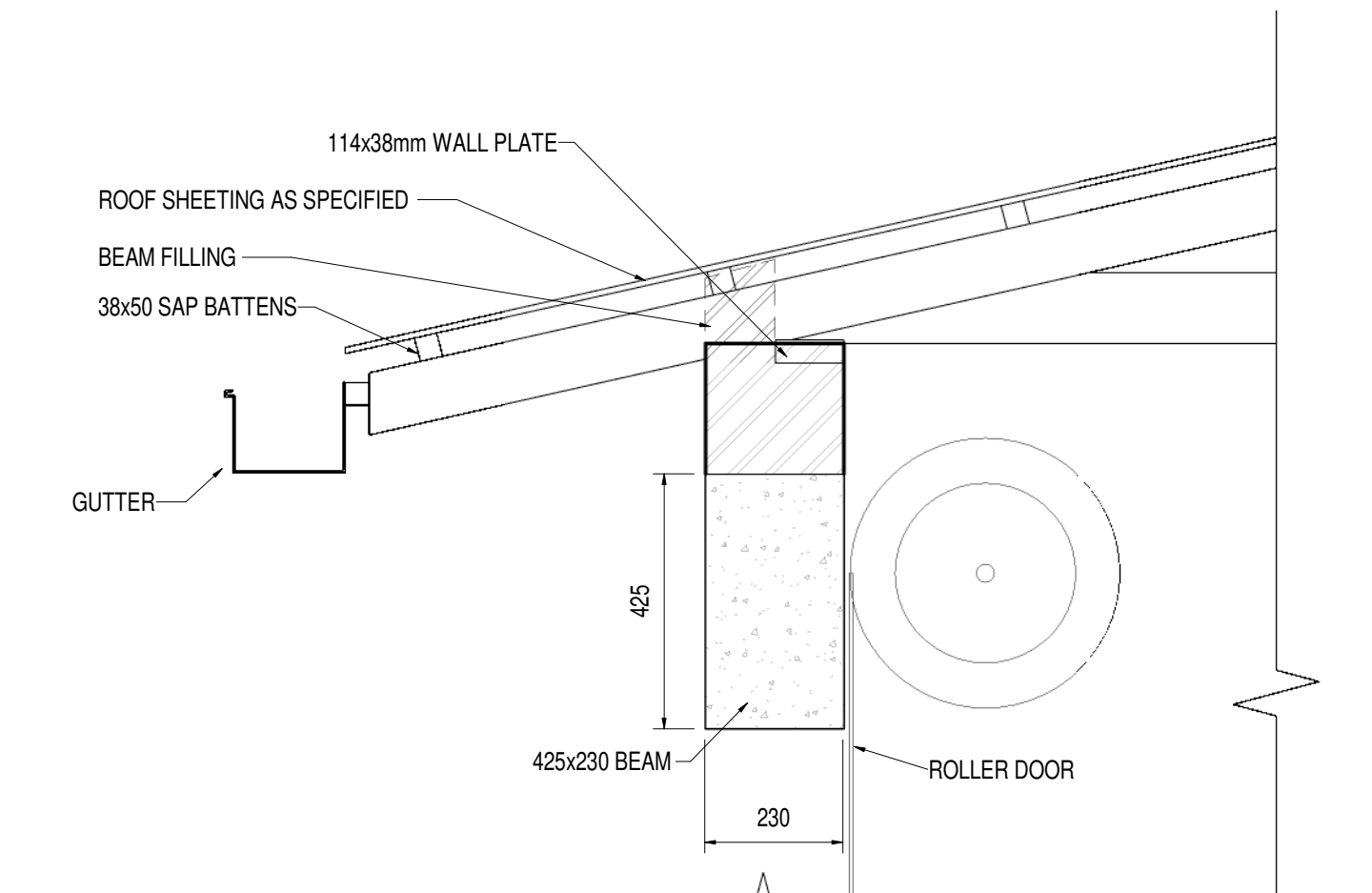
CONSULTING ENGINEERS		SURVEYED		JOHANNESBURG WATER (SOC) LTD		CITY OF JOHANNESBURG		DESIGN MANAGER	SCALE	AMENDMENTS	APPROVED	DATE	DRAWING NUMBER
	ZITHOLELE P.O.BOX 6002 HALFWAY HOUSE 1685 TEL. 011-207 2060 FAX. 086 674 6121 EMAIL mail@zitholele.co.za	DESIGNED	GK		TURBINE HALL 65 NTEM PILISO STREET NEWTOWN TEL: (011) 688 1400 FAX: (011) 688 1529	BUSHKOPPIE WASTEWATER TREATMENT WORKS INFRASTRUCTURE RENEWAL PLAN NEW WASH WATER FILTER STATION LAYOUTS AND DETAILS							
		DRAWN	NM										
		CHECKED	GK										
		SERVICES CHECKED											
		GEOTECHNICAL INVESTIGATION											
		SERVITUDES											
APPROVED	J.D. KHEVU	DATE	T 0 1										
P. Eng. No.	90409												
DATE	24.03.2024												



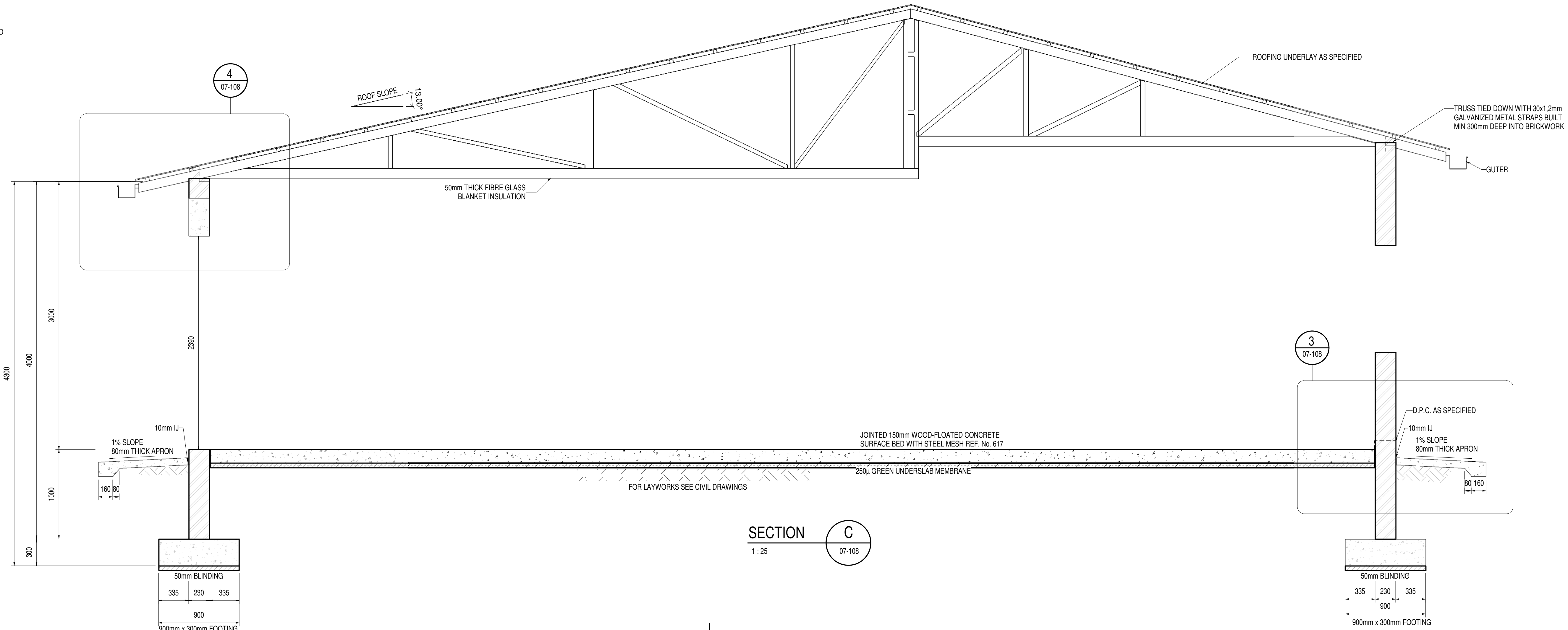
ROOF LAYOUT
1:50



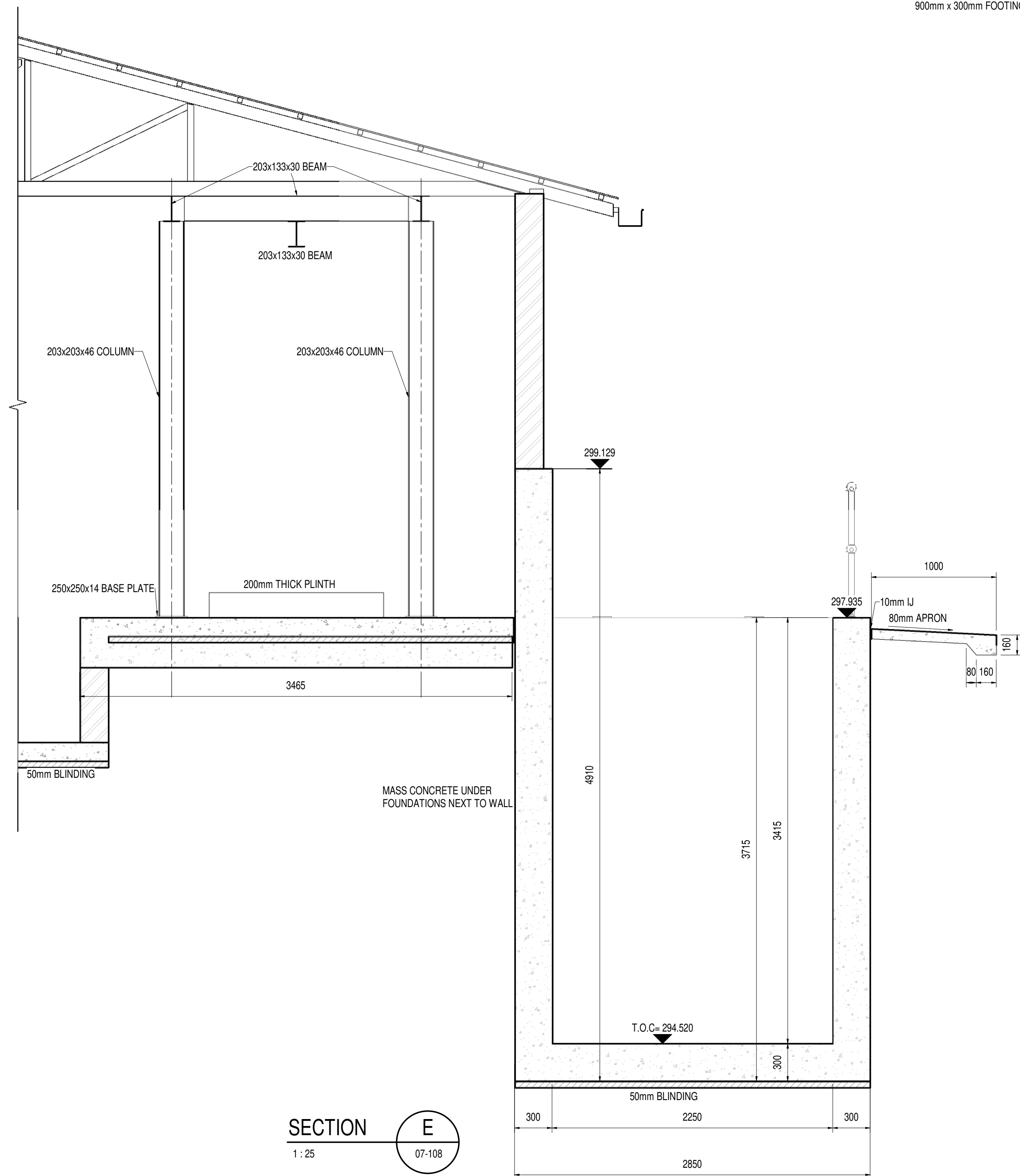
DETAIL 3
1:12



DETAIL 4
1:12



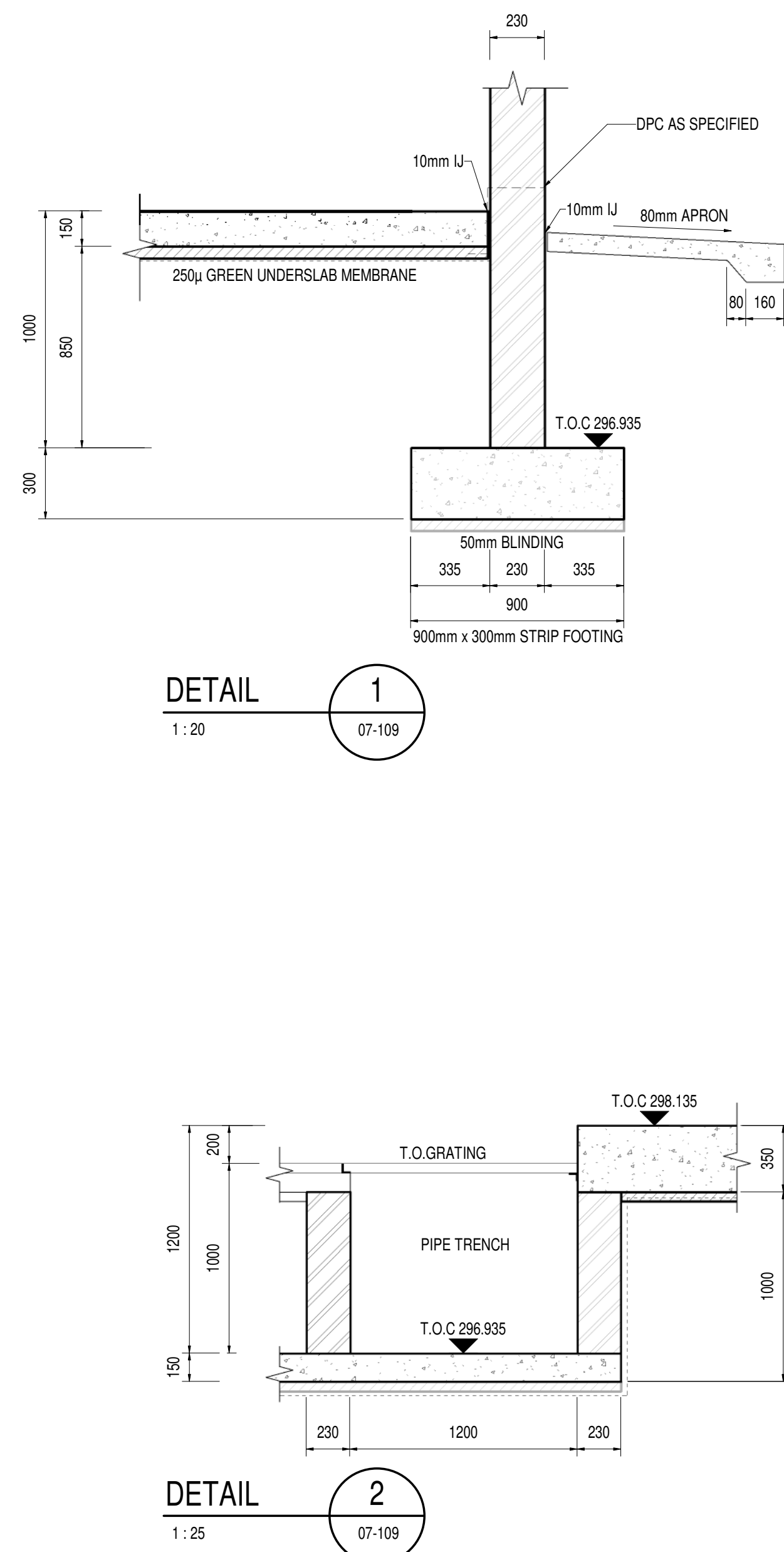
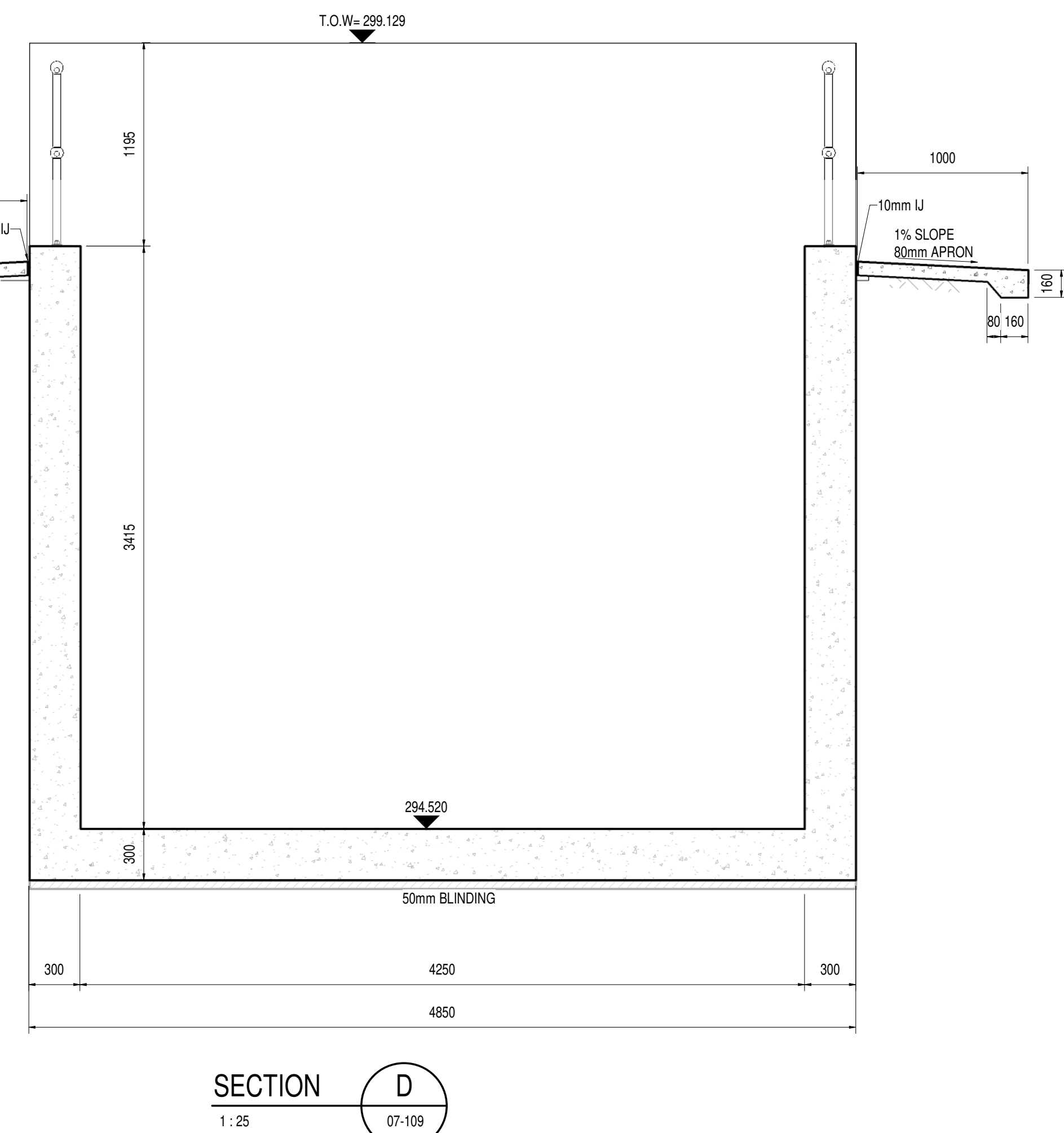
SECTION C
1:25

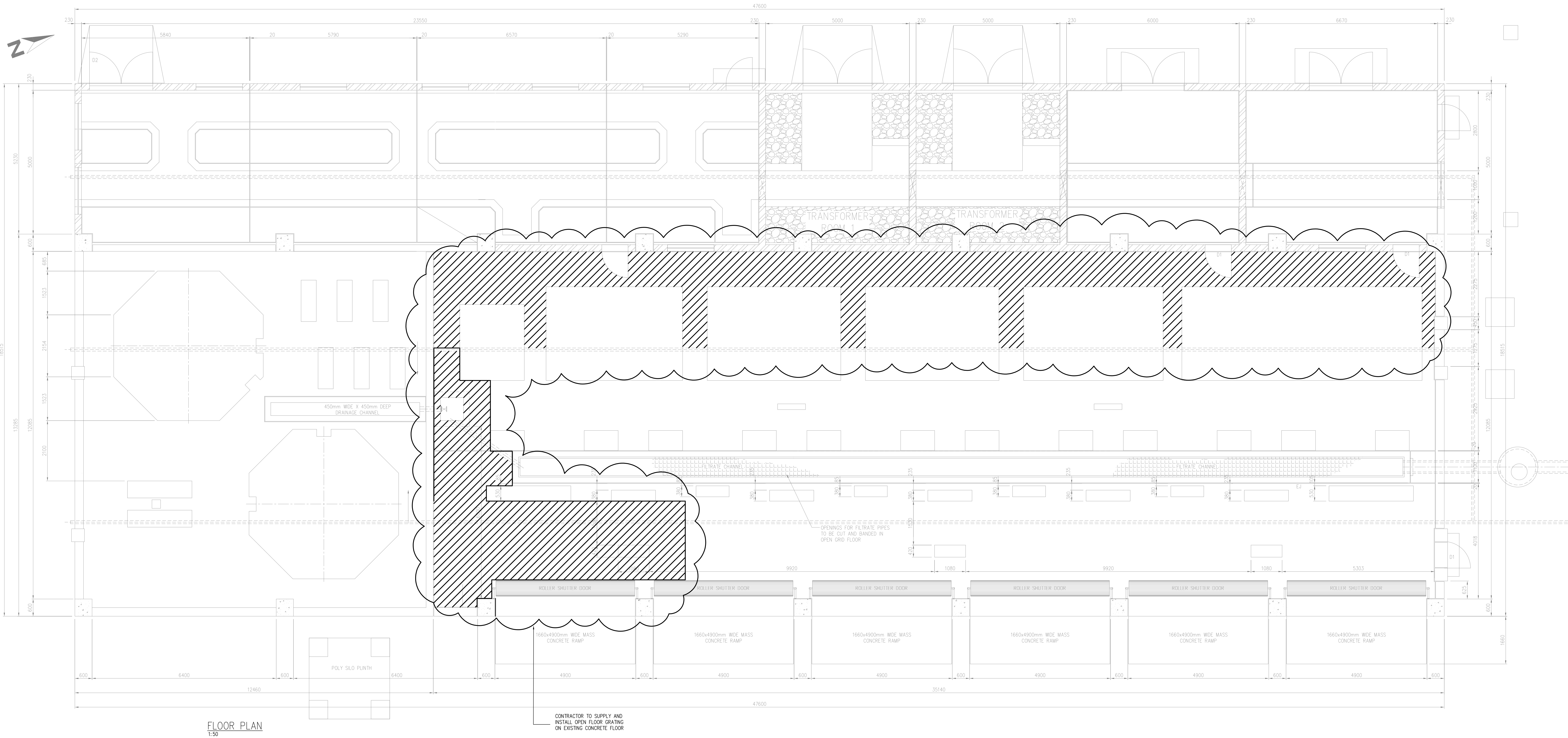


SECTION E
1:25

DEPARTMENT	APPROVED	DESIGNATION	DATE

CONSULTING ENGINEERS		SURVEYED		JOHANNESBURG WATER (SOC) LTD		CITY OF JOHANNESBURG		DESIGN MANAGER	SCALE	AMENDMENTS	APPROVED	DATE	DRAWING NUMBER	
	ZITHOLELE P.O.BOX 6002 HALFWAY HOUSE 1685 TEL. 011-207 2060 FAX. 086 674 6121 EMAIL mail@zitholele.co.za	DESIGNED	GK		TURBINE HALL 65 NTEM PILISO STREET NEWTOWN TEL: (011) 688 1400 FAX: (011) 688 1529	BUSHKOPPIE WASTEWATER TREATMENT WORKS INFRASTRUCTURE RENEWAL PLAN NEW WASH WATER FILTER STATION ROOF LAYOUT, SECTIONS & DETAILS								
		DRAWN	NM											
		CHECKED	GK											
		SERVICES CHECKED												
		GEOTECHNICAL INVESTIGATION												
		SERVITUDES												
		APPROVED	J.D. KHEVU 960406											
DATE														
								DATE	AS SHOWN	T00	ISSUED FOR TENDER	J.H.S	12.11.2021	JW NUMBER
										T01	DRAWING UPDATES	GK		CONSULTANT'S NUMBER 18056-73-07-108
														FILE NUMBER

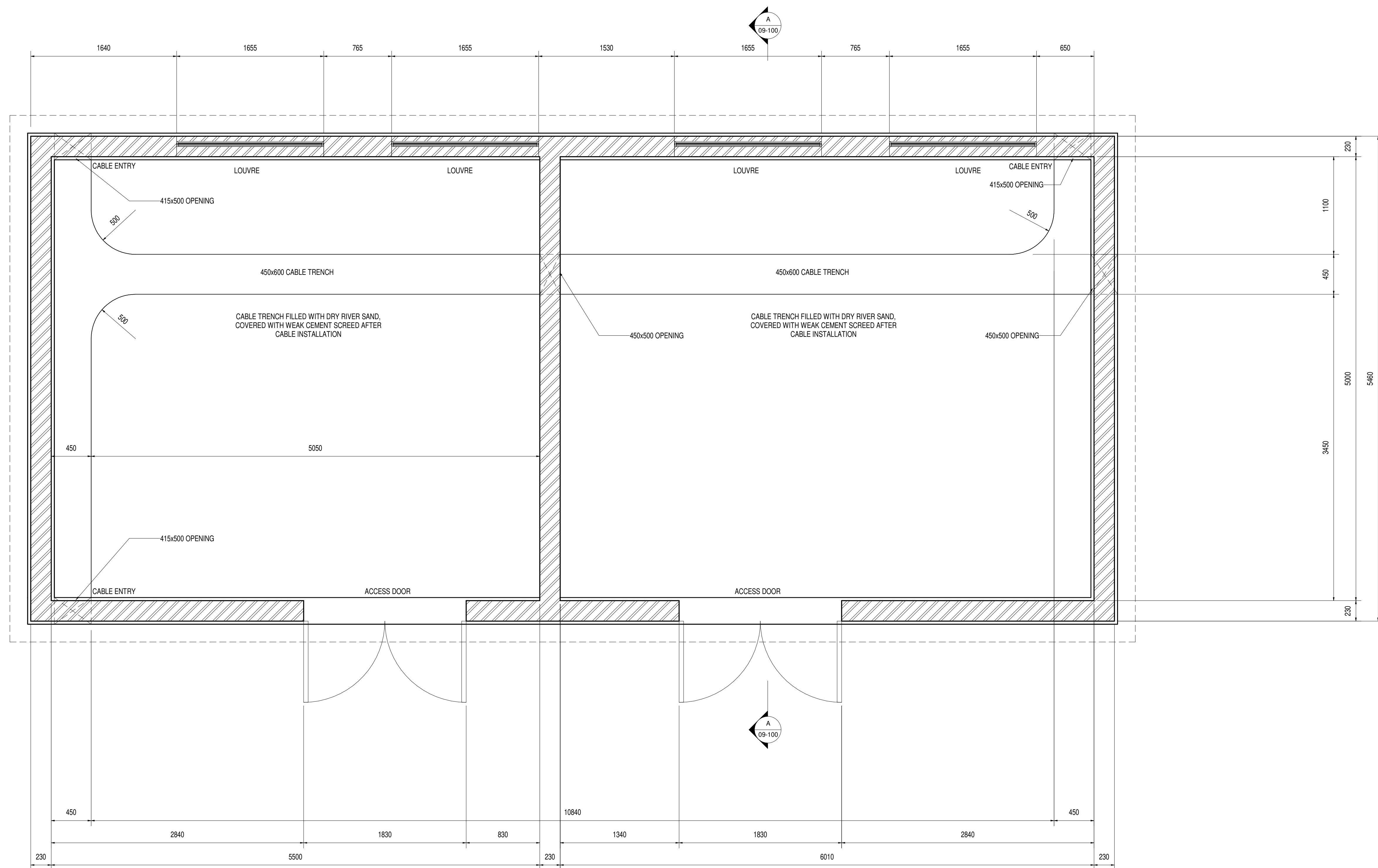
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FLOOR PLAN
1:50

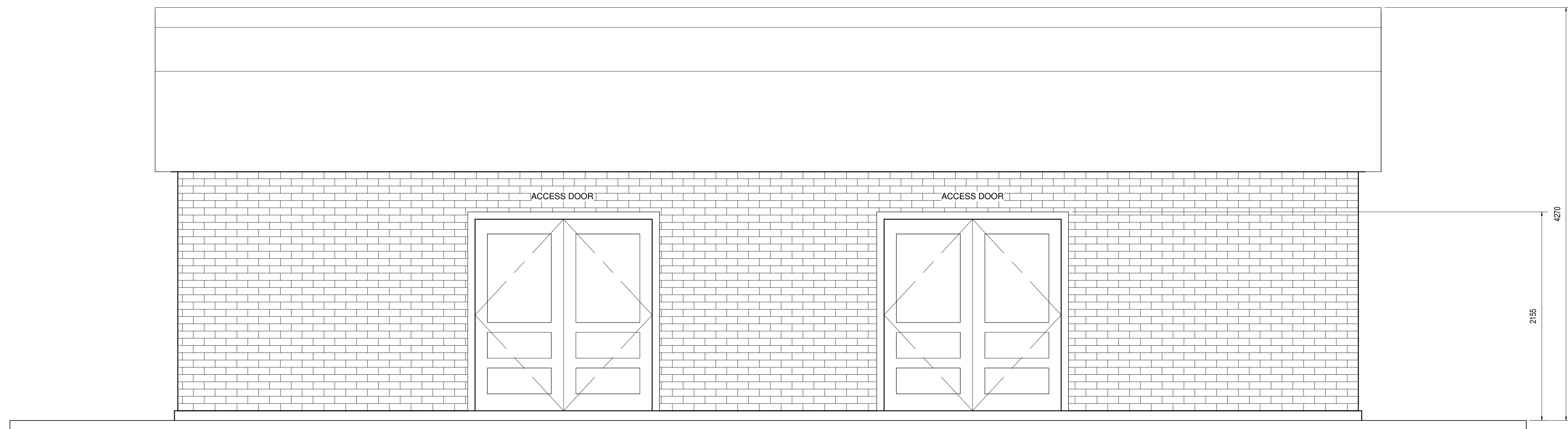
DEPARTMENT	APPROVED	DESIGNATION	DATE

CONSULTING ENGINEERS			SURVEYED		JOHANNESBURG WATER (SOC) LTD		CITY OF JOHANNESBURG				DESIGN MANAGER	SCALE	AMENDMENTS		APPROVED	DATE	DRAWING No.	
	ZITHOLELE P.O. BOX 6002 HALFWAY HOUSE 1685 TEL: (011) 207 2060 FAX: (086) 674 6121 EMAIL: mail@zitholele.co.za	DESIGNED	NG	 Johannesburg Water	TURBINE HALL 65 NTEMI PILISO STREET NEWTOWN TEL: (011) 688-1400 FAX: (011) 688-1529	BUSHKOPPIE WASTEWATER TREATMENT WORKS INFRASTRUCTURE RENEWAL PLAN SLUDGE HANDLING FACILITY BELT PRESS BUILDING LAYOUT REFURBISHMENT				ISSUED FOR PRELIMINARY DESIGN			JW NUMBER					
		DRAWN	DP							P00			15.07.21	CONSULTANT'S NUMBER 18056-73-08-100				
		CHECKED	NG							P01			15.07.21					
		SERVICES CHECKED								T01			24.03.2024	FILE No				
		GEOTECHNICAL INVESTIGATION												T O 1				
		SERVITUDES																
		APPROVED	J. SWART					DATE										
		Pr. Eng. No.	860196															
		DATE	24.03.2024															



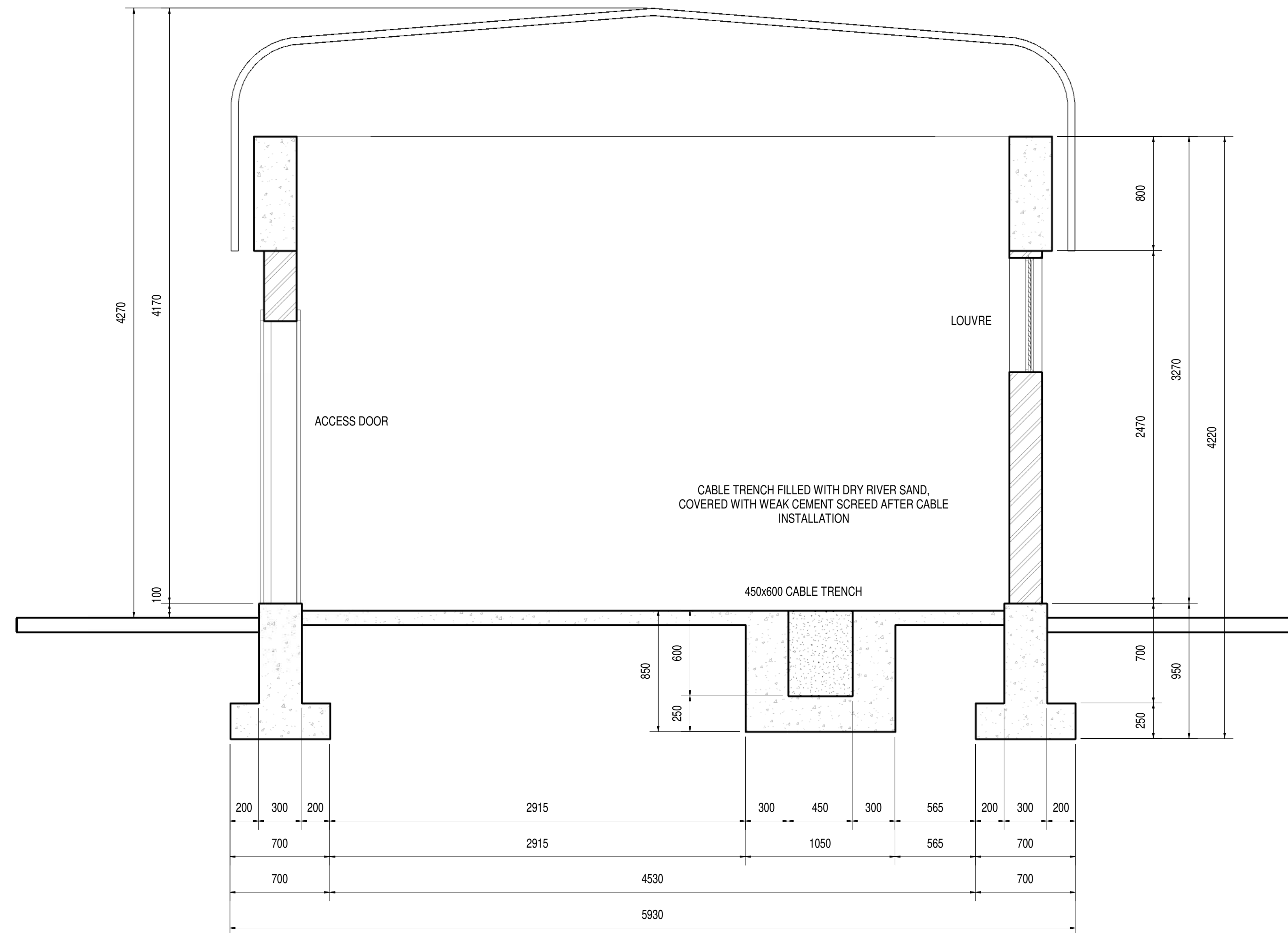
PLAN ON FLOOR

1:25



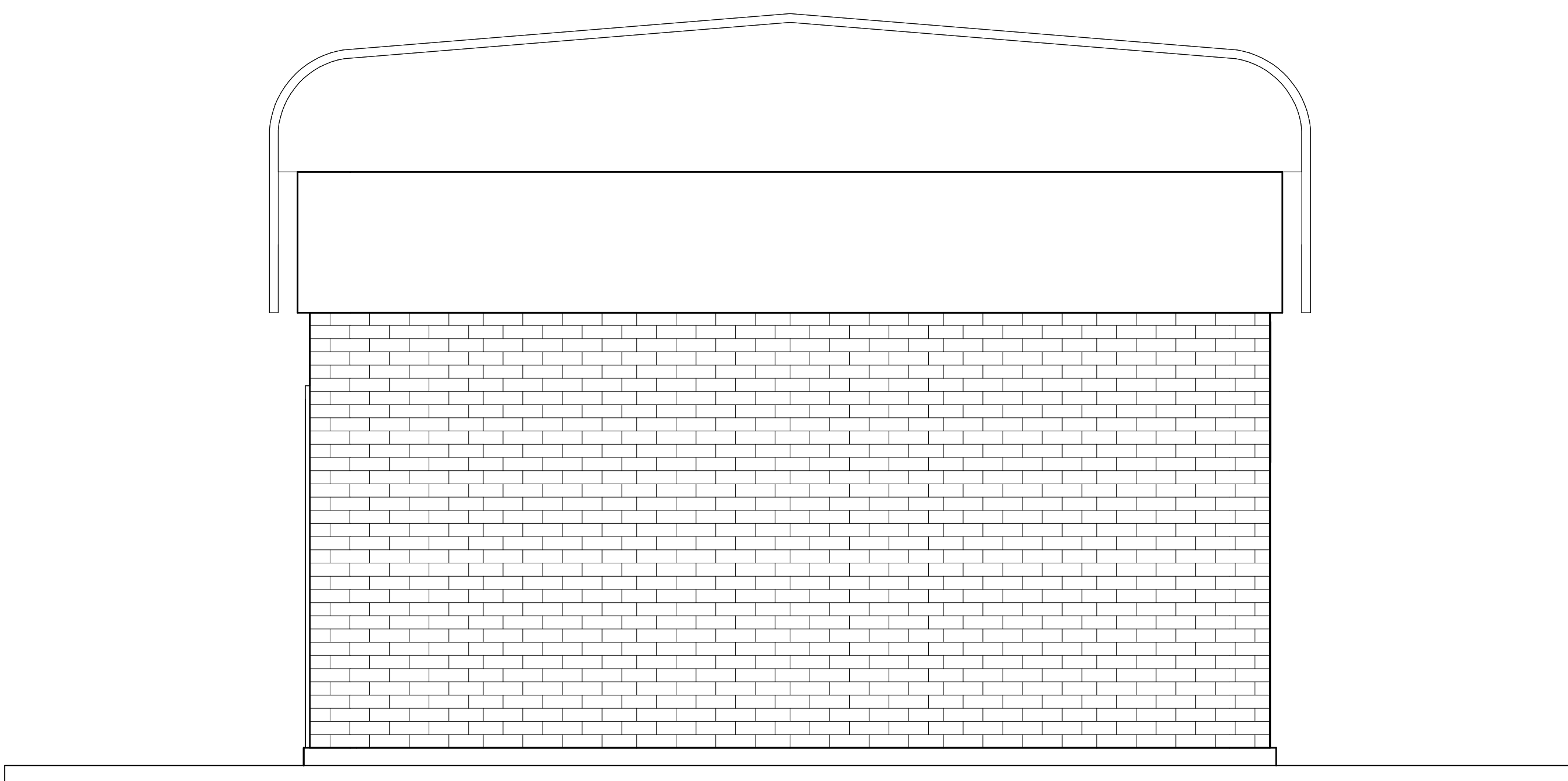
SOUTH ELEVATION

1:25



SECTION A

1:25



EAST ELEVATION

1:25

DEPARTMENT	APPROVED	DESIGNATION	DATE

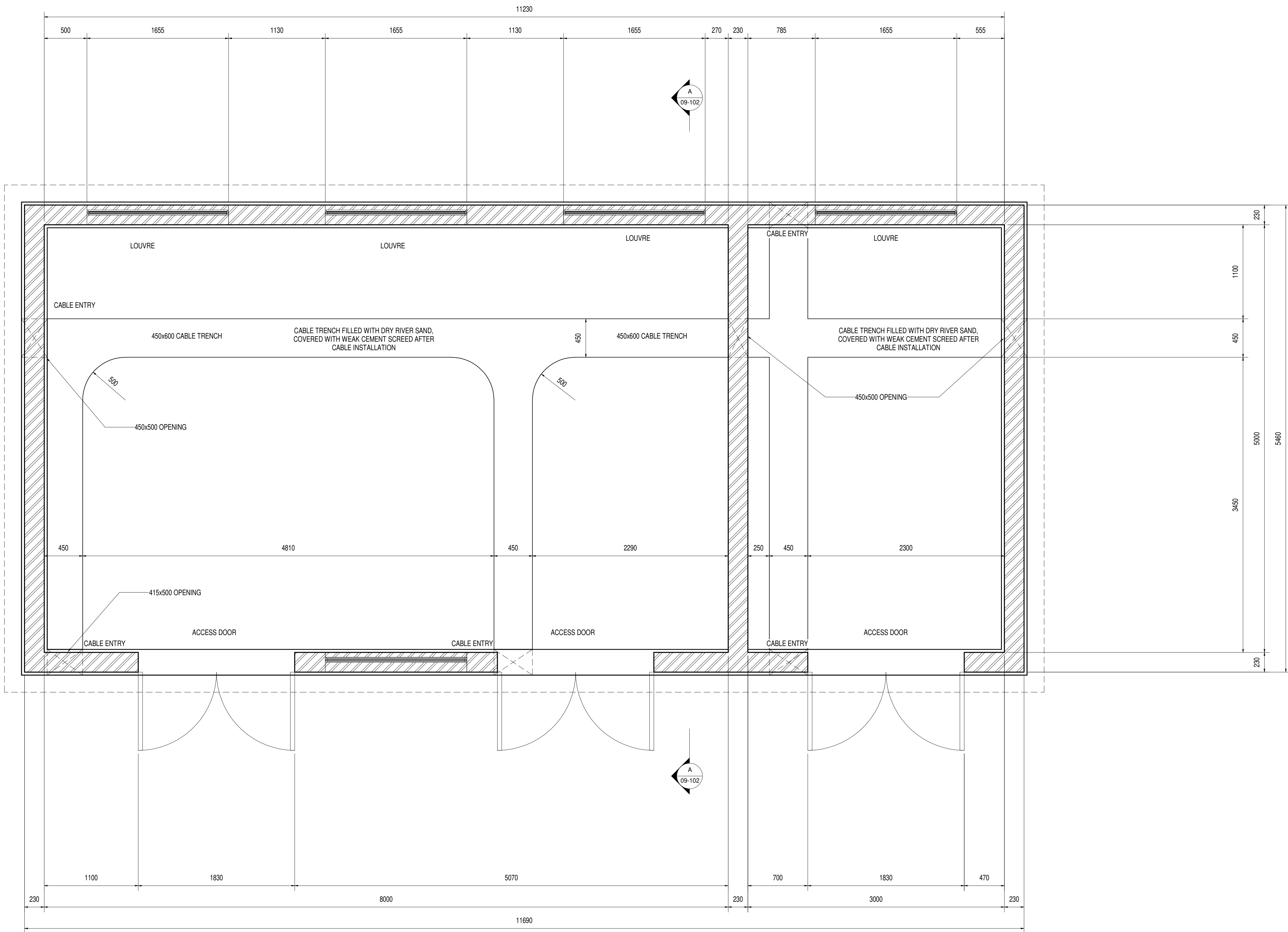
CONSULTING ENGINEERS	
	ZITHOLELE P.O. BOX 6002 HALFWAY HOUSE 1685 TEL. 011-207 2060 FAX. 066 674 6121 EMAIL. mail@zitholele.co.za

SURVEYED	
DESIGNED	GK
DRAWN	NM
CHECKED	GK
SERVICES CHECKED	
GEOTECHNICAL INVESTIGATION	
SERVITUDES	
APPROVED	J.D. KVEVLI
Pr. Eng. No.	9604106
DATE	15.07.2021

JOHANNESBURG WATER (SOC) LTD	
	TURBINE HALL 65 NTEM PILISO STREET NEWTOWN
	TEL: (011) 688 1400 FAX: (011) 688 1529

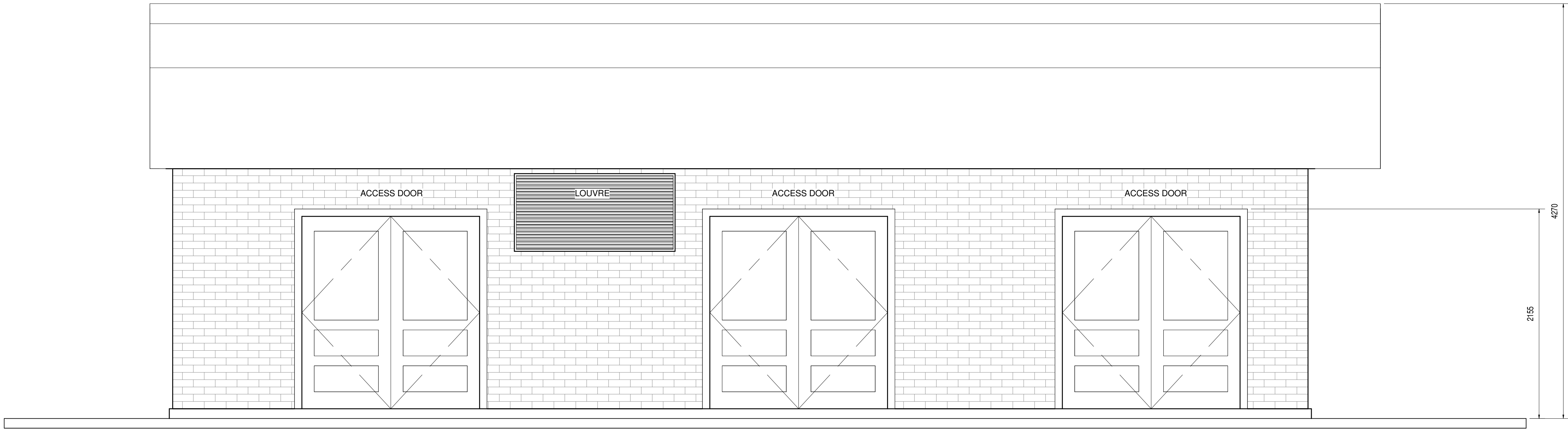
CITY OF JOHANNESBURG	
BUSHKOPPIE WASTEWATER TREATMENT WORKS	
INFRASTRUCTURE RENEWAL PLAN	
MV ROOMS	
MAIN INTAKE SUBSTATION PLAN, ELEVATION	
& SECTIONS AS BUILT	

DESIGN MANAGER	SCALE	AMENDMENTS	APPROVED	DATE	DRAWING NUMBER
	AS SHOWN	200 AS BUILT	J.H.S.	12.11.2021	JW NUMBER
		T01 ISSUED FOR TENDER	GK	24.03.2024	CONSULTANT'S NUMBER
					18056-73-09-100
					FILE NUMBER
DATE					T 0 1



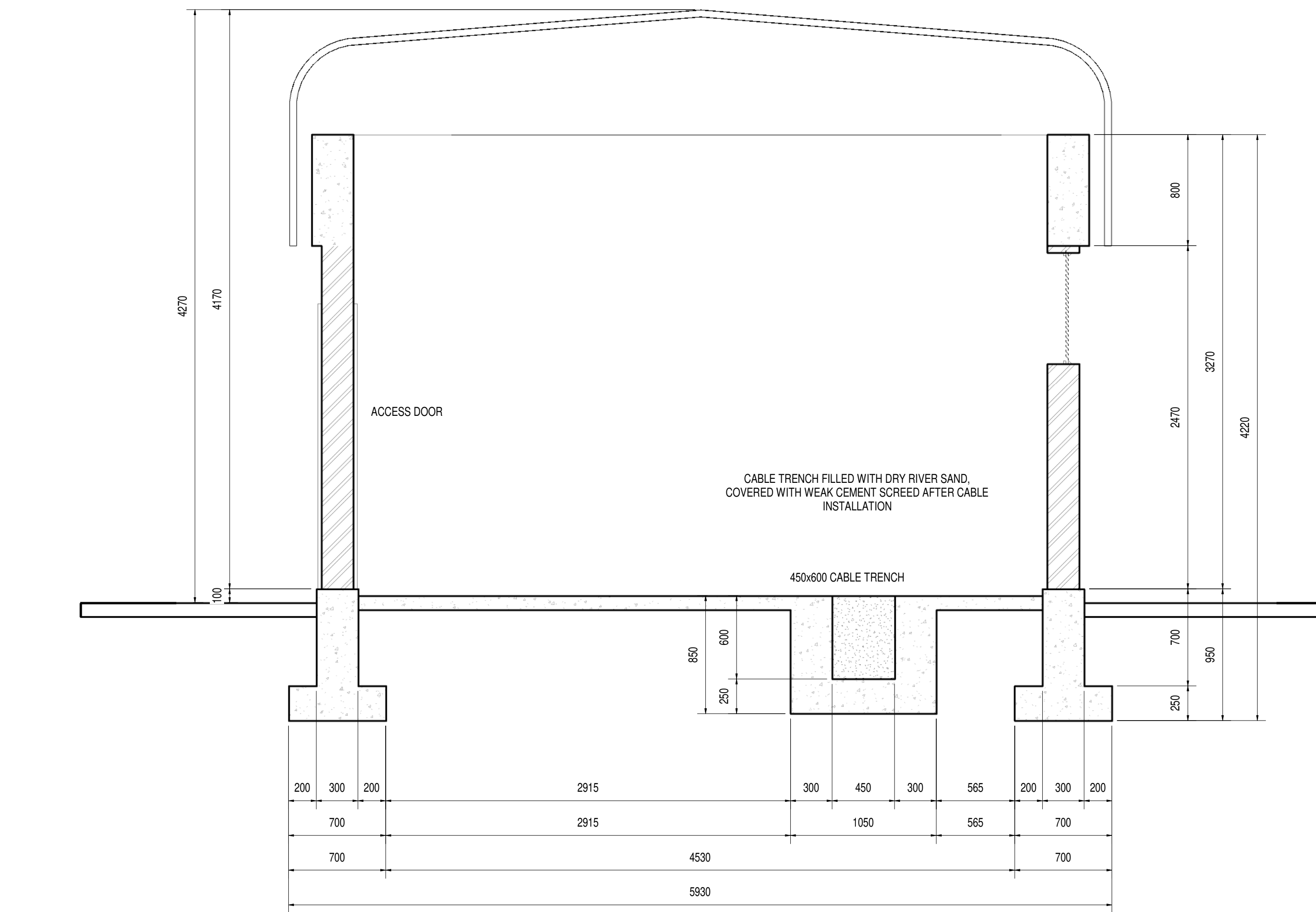
PLAN ON FLOOR (3 SUB STATIONS)

1:25



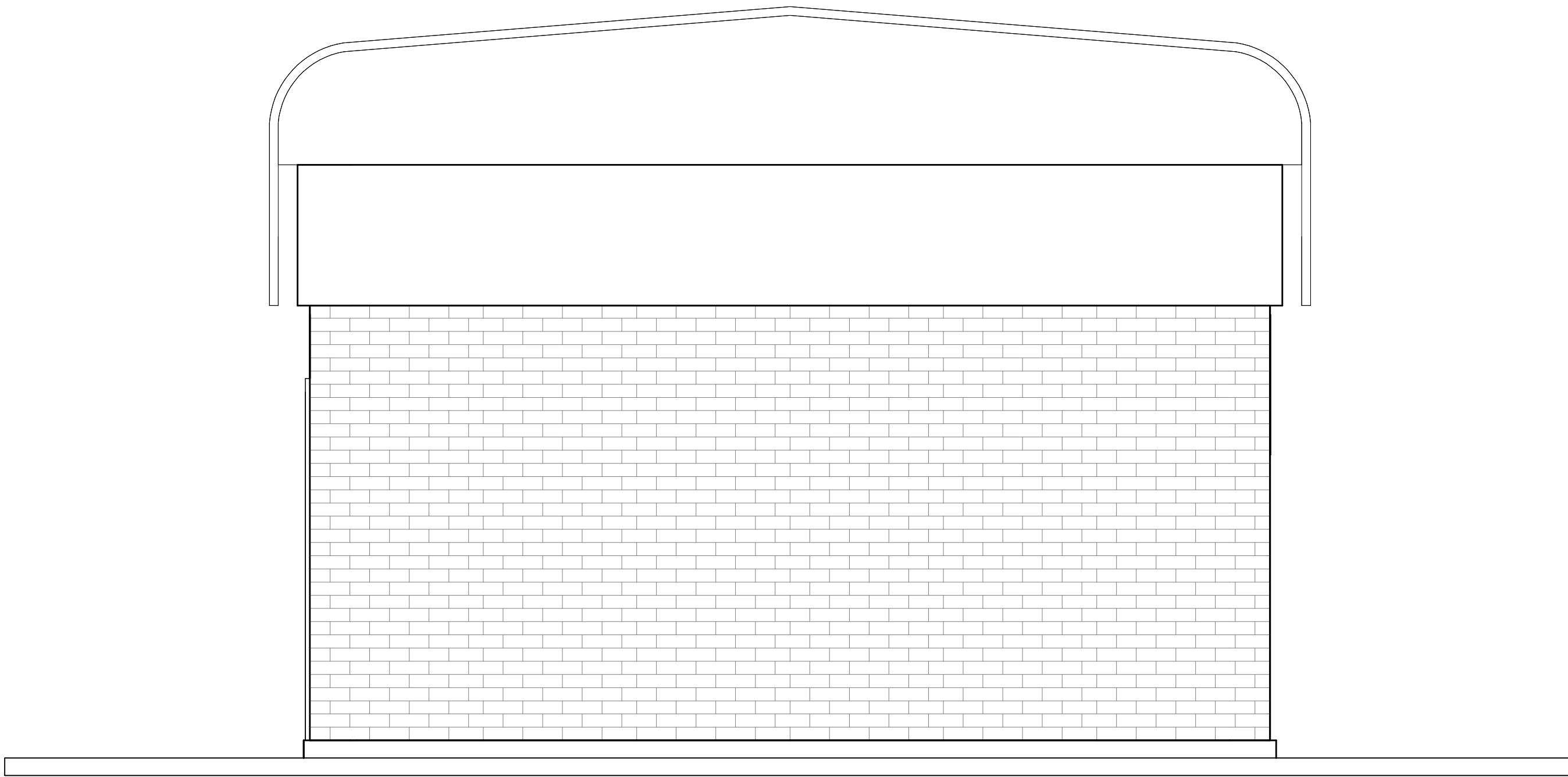
SOUTH ELEVATION

1:25



SECTION A

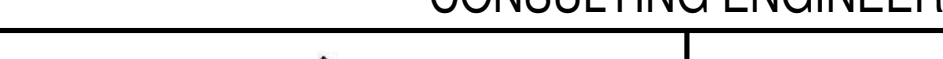
1:25



EAST ELEVATION

1:25

DEPARTMENT	APPROVED	DESIGNATION	DATE

CONSULTING ENGINEERS		SURVEYED		JOHANNESBURG WATER (SOC) LTD		CITY OF JOHANNESBURG					DESIGN MANAGER	SCALE	AMENDMENTS		APPROVED	DATE	DRAWING NUMBER
	ZITHOLELE P.O.BOX 6002 HALFWAY HOUSE 1685 TEL. 011-207 2060 FAX. 086 674 6121 EMAIL mail@zitholele.co.za	DESIGNED	J.S		TURBINE HALL 65 NTEM PILISO STREET NEWTOWN TEL: (011) 688 1400 FAX: (011) 688 1529	BUSHKOPPIE WASTEWATER TREATMENT WORKS							AS SHOWN	200			
		DRAWN	D.P			INFRASTRUCTURE RENEWAL PLAN					T01	ISSUED FOR TENDER		J.H.S	24.03.2024	CONSULTANT'S NUMBER	
		CHECKED	J.S			MV ROOMS					18056-73-09-102						
		SERVICES CHECKED				TYPICAL SUBSTATION PLAN, ELEVATIONS & SECTIONS					FILE NUMBER						
		GEOTECHNICAL INVESTIGATION				AS-BUILT											
		SERVICES															
		APPROVED	J. SWART														
		Pr. Eng. No.	860169														
		DATE	24.03.2024														